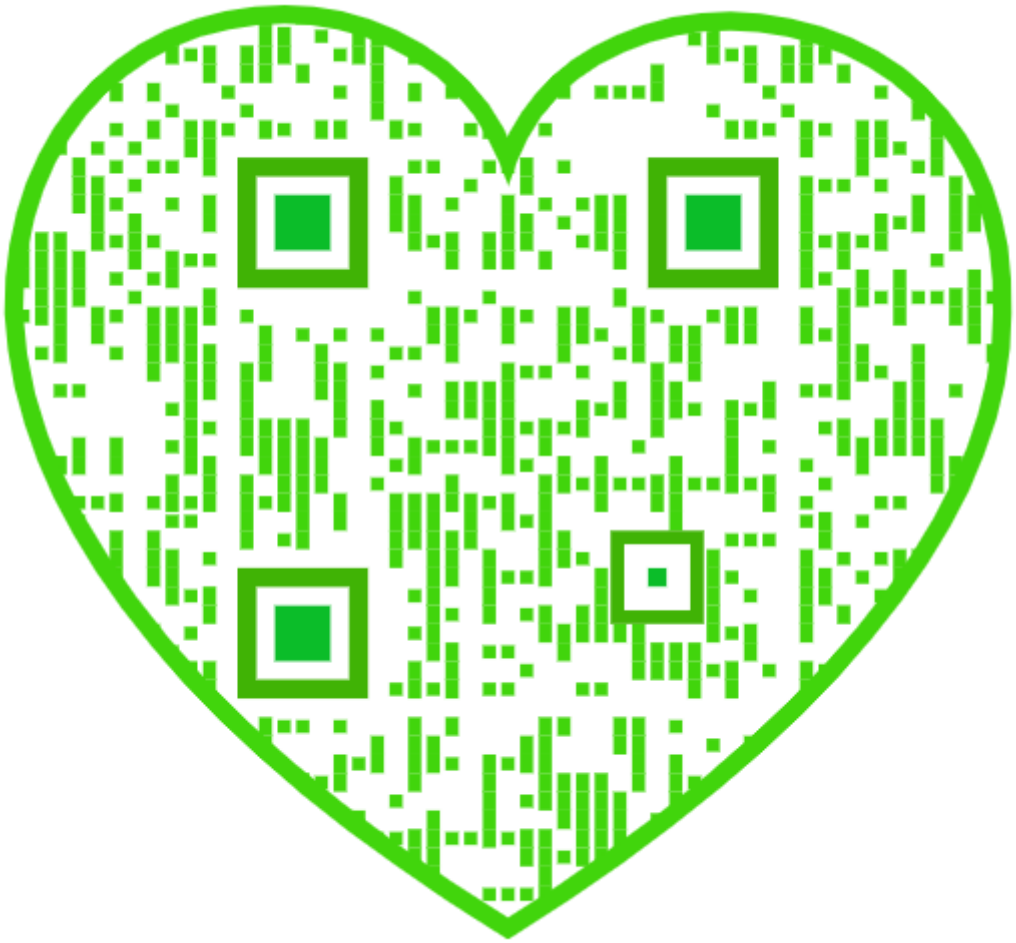

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BRINGING IN THE CARIBOU.

A BOOK OF WINTER SPORTS

AN ATTEMPT TO CATCH THE SPIRIT OF THE KEEN JOYS OF THE WINTER SEASON

EDITED BY

J. C. DIER

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CONTENTS

ICE–MOTORING AND ICE–YACHTING

		PAGE
A New Winter Sport	*Compiled*	1
Ice-streaking	*C. B. Hayward*	4
Real Speed and Safety	*C. B. Hayward*	11
Motor Sleds on Saranac Lake	*Scientific American*	15
Ice-yachting	*The Saturday Review*	18
Ice-yacht Sailing and Racing	*Archibald Rogers*	27
How to build a Sixth-class Ice-yacht	*J. Sterling Bird*	32
The Birth of the Scooter	*J. W. Muller*	41
Building a Scooter	*J. W. Muller*	47

SKATING

The Rudiments of Skating	*William T. Richardson*	53
Skating in 1180	*FitzStephen*	59
Mr. Winkle on the Ice	*Charles Dickens*	60
Skating for the Little Bear at Grindelwald	*Daniel P. Rhodes*	65
Figure Skating	*J. C. D.*	67
Valsing on the Ice	*Ernest Law*	74
The Points of Valsing Form	*Ernest Law*	85
Humors of Skating	*Reginald Cleaver*	92
Skating in Holland	*Eduard de Amicis*	96
Skate-sailing	*J. C. D.*	101

ICE–HOCKEY

		PAGE
The Home of Winter Sport	*W. George Beers*	109
The Canadian National Game	*Charles Patterson*	111
"Playing the Puck"	*J. C. Allen*	117
The Rules of the Game of Ice-hockey	*Compiled*	120

CURLING

The Game of Curling	*Christopher North*	125
The General Rules of the Game of Curling		133
The Curler Word	*Timothy Twist*	139
The Skip	*Rev. John Kerr*	142
The Jolly Curlers	*James Hogg*	148
The Humors of Curling	*Rev. John Kerr*	156
The Point Game	*Rev. John Kerr*	157
A Curler's Elegy	*Robert Burns*	163

SNOW–SHOEING

The Key to the Winter Forest	*Hamilton Wright Mabie*	165
A Snoe-shoe Run	*Jean N. McIlwraith*	168
The Snow-shoeing Costume	*Compiled*	171
A Novice on Snow-shoes	*Harold J. Howland*	177
In the Caribou Country	*Edwin Sandys*	179
On Snow-shoes among Snow-slides	*Arthur Hewitt*	189
Snow-shoe Picnicking	*L. D. Sherman*	192
The Activities of a Snow-shoe Club	*J. C. D.*	196
Storming the Ice Fort	*Faith Fenton*	199
"The Old Tuque Bleue"	*W. C. Beers*	201

SKIING

		PAGE
"The Wooden Wings of Norway"	*J. C. D.*	203
The Olympic Games of the North	*J. W. Schreiner*	207
Ski-jumping in the Holmenkollen Games	*M. Edmund Spencer*	208
A Ski-Löbner who became Famous	*M. Edmund Spencer*	212
Long-distance Runs on Ski	*Mme. von Thiele*	215
Old Ways and New	*H. K. Daniels*	219
A Practical Lesson in Ski-running	*Daniel P. Rhodes*	222
Crossing an Alpine Pass on Ski	*Arthur Conan Doyle*	228
Carrying Mail over the Andes on Ski	*J. W. Wisby*	234
An American Ski Tournament	*Sumner W. Matteson*	240
Skiing Resorts	*Compiled*	245

TOBOGGANING

Memories of a Boy-time Winter	*Emery Pottle*	247
Coasting	*Compiled*	250
The Toboggan	*W. A. D.*	254
A Primitive Coaster	*Jean N. McIlwraith*	258
Tobogganing as a Sport	*J. C. Allen and J. T. Bealby*	259
A Practical Toboggan Chute	*Walter A. Dyer*	262
The Klosters Course at Davos	*A. Pitcairn Knowles*	266
The "Cresta" Run at St. Moritz	*A. Pitcairn Knowles*	268
Tobogganing on a Swiss Glacier	*Margaret Symonds*	270
Tobogganing by Moonlight	*John Addington Symonds*	275
Ships of the North	*William T. Allison*	278

SLEIGHING

King Winter in his City Home	*Leon Vandervort*	279
The Cariole of the Provinces		282

		PAGE
The White Carnival	*Vance Thompson*	283
Sledging on the Névsky Prospékt in Winter	*Isabel F. Hapgood*	288
The Sledges of Moscow	*H. Sutherland Edwards*	291
Sledge-posting in Switzerland	*John Addington Symonds*	296
The Norwegian Smalslœde	*Mme. von Thiele*	308
Bringing Lorna Home	*R. D. Blackmore*	310

OTHER ICE AND SNOW SPORTS

An Ice Gymkhana at Davos	*Daniel P. Rhodes*	319
American Indian Snow-snakes	*Stewart Culin*	321
Ice Shuffleboard	*F. L. Cooper*	327
The Ice Carnival	*Edwin Wildman*	330
Fête de Nuit in Montreal	*E. Way Elkington*	334
Mr. Pickwick's Famous Slide	*Charles Dickens*	336
Children's Games on the Snow and Ice	*J. C. D.*	339

ILLUSTRATIONS

COLORED PLATES

In the Caribou County	*Frontispiece*	
A Peasant Boy of Veene on Skates	*facing page*	96
Ski-jumping	" "	208
Skiers drinking Goosewine	" "	232
Tobogganing made Easy	" "	256
Sledging with the "Pristyashka" or Side-horse	" "	294
A Winter Sport in July, on Mt. Olympus, Washington	" "	342

HALF-TONES

The Old and the New	*facing page*	8
An Ice-sleigh in Holland	" "	24
The Fleet of Scooters on Great South Bay	" "	48
Skating in Central Park, New York	" "	56
An Ice-palace in Montreal	" "	80
Skate-sailing	" "	104
A Practice Game of Hockey	" "	112
The Curlers	" "	144
A Snow-shoe Run	" "	168
On Snow-shoes in the North Woods	" "	176
A Toboggan Spill	" "	248

Bob-sleighing at St. Moritz . . . . . *facing page* 266

The Névsky Prospékt in Winter before the Days of Electric Trams . . . . . " " 288

Mrs. Asquith in a Tailing Party at St. Moritz " " 304

A Menominee Indian holding the Snow-snake in the Proper Position for a Throw . . " " 324

The Bounce: a Carnival Courtesy . . . " " 332

A BOOK OF WINTER SPORTS

WINTER SPORTS

A NEW WINTER SPORT

Speed, swifter and swifter speed, the pleasure in rapid motion for its own sake, has accounted for more than one of the modern developments of the older forms of winter sport. On the snow the tobogganer used to find his pleasure in the exercise of judgment and skill in handling his craft over a course hardly twice alike, being the crust of drifted snow; then came at certain European winter resorts the ice-run, on which skill is still required and high speed attained; but also, more common in this country, the long safe-guarded "chute," with its breathless drop and whirlwind speed as the only sources of excitement. Even more on the ice has speed, high speed, been sought. The skater fashioned himself a sail; the sail was fitted to a frame, and the ice-boater learned the thrill of flying faster than the wind that drove him; and now a new development has begun with possibilities of speed almost unbelievable.

Along with the newer ice-boats remain types like the fleet in Toronto Bay. There the boats range from twenty to thirty-five feet in length, spread an area of sail of from two hundred to six hundred square feet, and are used as a continuous winter diversion, frequently by parties of four or five. Quite different are the light, steel-skeleton racing craft most often seen on the Hudson River and on Ameri-

can lakes. Owners of crack ice-yachts will sometimes ship their craft a thousand miles for entry in a close race.

Racing centres are on the Hudson from Tarrytown to Poughkeepsie; on Orange Lake, about five miles back of Newburgh; on the two branches of the Shrewsbury River; on Saranac Lake in the Adirondacks; and on a circuit of western lakes. The official record in an ice-yacht race is held by the *Wolverine*, of Kalamazoo, Michigan, for a distance of twenty miles with a turn every two miles. But the *Scud* on the Shrewsbury is credited with having made a mile and a quarter dash in forty-two seconds. At Kingston, on the St. Lawrence River, the flyers are the two-sailed racing type, and there are exciting brushes between the Kingston ice-yachts and those from Cape Vincent on the New York side of the river. Great South Bay evolved its own type of winter craft for both pleasure and service, and has recently added to the all-round human qualities of the scooter that of speed by adding the gasoline motor for driving power.

It is the motor which is working a change in ice-speeding, of which no one as yet knows the outcome, for the development of the "ice-motor," "ice-streaker," "ice-scooter," or whatever it may finally be called has hardly begun. It is still in the most elementary experimental stage where men are testing all manner of driving gear for its ice-running qualities. The contending types are two: the one proceeds by pushing the air with a propeller such as is used on an aëroplane; the other by pulling on the ice with one or another device from a simple chain around the tire of an automobile to a specially designed spiked wheel between sled runners. The problems of the propeller type are being

worked out on Saranac Lake, where H. Webb Hyde, of Boston, began experiments, as related elsewhere, as early as 1909.

The friction type of ice-motor first received serious attention when, in 1911, Fred Waters, of Red Bank, stumbled into a sensation by putting his runabout on runners with a cogged wheel motor driven. It is said that he had no thought of its being unusually speedy, but simply aimed to take advantage of the better and less obstructed surface of the ice as compared with the rough roads. The speed of this "auto-sleigh" with an engine of only six horsepower was so remarkable that in the next winter he took a Ford chassis, placed runners where the front wheels were, and rear runners on a three-foot extension of the back of the chassis. In place of the tires on the rear wheels are about thirty-six sharp steel plates which attend to its propulsion when driven by a twenty-two and a half horsepower engine. This ice-sled is driven exactly as one drives an automobile, and runs smoothly; springs in the front and rear make riding comfortable even at the highest speed. Mr. Waters believes that he will be able to make almost a mile a minute on clear ice, which seems to be about the speed developed so far by the propeller type on Saranac Lake. Intense interest is being shown in the new sport by both veteran ice-yachtsmen and automobile owners who were never aboard an ice-boat; there is no question but that ice-motors will soon be thoroughly studied in the manufacturers' designing rooms, and that motor ice-running will head the list of winter sports in which speed is a factor. More power to it!

— *Compiled.*

ICE-STREAKING

SPEED, speed, and still more speed — on the land, in the sea, in the air, and under the sea, and now finally — on the ice. From its humble rôle of helping with the chores about the farm that was almost its only occupation less than a quarter of a century ago, the internal combustion motor has revolutionized transportation so completely that whether it be on the land or in the water — or even in that hitherto mysterious and seemingly impossible fourth dimension, the air, few things go fast nowadays except with the aid of gasoline. With the conquest of the air nothing remained but Nature's winter highways, the immaculately smooth and mathematically level surface of the freshly frozen lakes and rivers that man can never hope to equal as a speedway. If flying were not already an accomplished fact, it would only be necessary to attach elevating planes to this latest hybrid of the gasoline motor family that calls the ice its native habitat to make it so. But if skimming over the glistening, polished surface of a river one hundred and twenty miles an hour with less than thirty horsepower at one's command, is not actually flying, as we have come to know it in the last few years, it at least sets a pace that makes the airman look to his laurels and marks the beginning of a new era in man's struggle of ages to annihilate time and distance. And if the crude combination of an

ex-motor-boat engine, an aëroplane propeller, and a home-made sled with a seat and steering-wheel on it, is capable of such an eye-opening performance, what is to be expected of a real "ice-motor" with a high-powered motor, an efficient propeller of the best type, and a "skid" built on approved stream-line design to cut the head resistance down to the possible minimum? Terms such as motor-car, automobile, and chassis are too weak to serve the purpose in this connection — they lose their significance utterly in the contemplation of the possibilities of what is practically level flight, and by the same token that much safer than the real thing — unless, of course, one disregards such trifling things as obstructions or the well-known habit of centrifugal force in setting at naught man's attempts to go around corners as fast as he does straightaway. Right, there is the beauty of the frozen river or lake — it provides a straightaway such as is to be found nowhere else in either art or nature, and there are no fences at the sides, or at the turns, for it's a long stretch that has no turning to bother the pilot of the new "ice-plane" — or "ice-streaker" might be better, as more strongly suggesting its capabilities as a devourer of distance. . . .

Ice-boating has long been considered one of the pastimes that provided the last drop that was to be had in the way of thrills, but even the ice-boat with its mysterious speed so much in excess of the wind that drives it has now been brought to a more lowly level. And the beauty of it is you can enjoy ice-streaking with anything that happens to be handy in the way of motive power, provided it feeds on gasoline. At least, so one would be led to judge from the miscellaneous assortment of ice-travelling apparatus

that ornamented the Hudson River from Tarrytown north during the unprecedented cold spell of the recent winter, which converted its otherwise treacherous surface into a solid highway and a free-for-all race course. Just an extra set of chains is all that is necessary to convert a motor-car into an ice-skimmer, and with that as a starting-point, there is no limit to the variety of contraptions that take to the ice as naturally as a duck does to water. The gasoline motor has even taken possession of the "scooter" that, equally at home in the water or on the ice, claims the south shore of Long Island as its birthplace.

The various impromptu race meets that have had the Tarrytown lighthouse on the Hudson River as their starting and finishing point have not alone brought forth a great variety of ice travellers, but have likewise been responsible for lining up a more variegated assortment of entrants than have probably ever been seen before in a single contest. In a single heat there have come to the starting-line, two horses and sleighs, an ice-boat, and a sixty-horsepower car. It is scarcely necessary to record the result — the competition naturally narrowed itself down to a test between the two representatives of the most primitive form of transportation, the horses. They raced with each other while the ice-boat and the car took a whack at the form of race that never seems to lose its novelty — a trial against time, each according to its ability as an annihilator of distance. While ice is not so effective a roadway as a smooth stretch of macadam where traction is concerned, there is no apparent slippage once the car gets under way, particularly if new and close-fitting chains are employed on the drivers. A regular course was laid out near Tarrytown over a meas-

ured straightaway mile and return, and over this a group of the fliers indulged in frequent competitive spurts. . . . Of course, ice-racing is always of the "flying start" variety — getting a machine under way on the slippery surface takes some little time, and if this were to be deducted from its running time, the totals made would not be very striking. There was accordingly a stretch of a mile or so provided for getting under way. The cars started together and remained bunched until they reached a point opposite the Maxwell factory on the point, where the line had been fixed. From there on there was a wild dash for the other end, a Mercedes leading all the way and making close to seventy-five miles an hour. The river bends a bit above the finish line, making a sharp turn necessary on the part of the cars, and some of them certainly made a dizzy whirl and a grand "sashay" in doing it. Others did the "swing your partners" figure there by making three or four complete revolutions while skidding sidewise. The engineers of the fast trains on the New York Central have had to eat snow or ice "dust" whenever the cars were on the ice, as the appearance of a through flyer was always the signal for a brush, and the locomotive always got the worst of it.

Ice-racing was also a strong feature of the winter sports on the Shrewsbury River in the winter of 1911–1912, the first in which the new sport was given prominence, and the Shrewsbury was the scene of some speed records as well. An ex-marine motored ice-streaker or wind-sleigh covered eight miles in four minutes. A Ford runabout with runners in place of the front wheels and steel-studded rear tires showed sixty miles per hour, which is rapid going for such a low-powered car, while a wind-sleigh, propelled by a

twelve-horsepower Buchet motor and what appeared to be an ex-restaurant fan, made forty miles an hour. With a more efficient propeller this ice-streaker could undoubtedly have done much better, as most of the power was wasted in simply fanning the air instead of drawing the machine ahead, though even its speed of forty miles an hour demonstrates how fast one may travel over the ice with comparatively little power. The polar explorers who proposed the use of gasoline-propelled sleighs for reaching ninety degrees north latitude several years ago had really hit upon a more practical vehicle for the purpose than was generally realized at the time.

Naturally the coefficient of friction between the combination of rubber and steel and the mirror-like surface of the ice falls far short of being as good as the ordinary smooth tire on a paved road, so that while there may be no great amount of slip apparent when the machine is travelling at high speed, there is actually a substantial loss of power at the rear wheels. The same motor that drives the sixty-horsepower car at sixty-five to seventy miles per hour on the ice, would give it more than double the speed by applying the power more economically. This accounts for the variegated results of inventive ingenuity which were displayed on the Hudson and Shrewsbury rivers during the cold January of 1912. There were light cars and heavy cars, with wheels and without them, some with only the front wheels replaced by runners, the drivers being relied on as usual. Others with five wheels — a chain-driven spiked driver, designed to dig into the ice slightly as it revolved, relieving the usual drivers of their ordinary functions. Still others with four runners and a pair of spiked

Photograph by the American Press Association, New York

THE OLD AND THE NEW

wheels in place of the usual drivers — the combinations were apparently unending.

But the display of real ingenuity appeared in the ice-streakers, — no other term seems to fit them quite so well, — for one and all appeared to be possessed of the ability to develop the greatest speed with the least power. Home-made, of course, — every one of them bearing the earmarks of the experimenting "kitchen mechanic," who is so often hard put to it to devise effective parts out of materials never intended for the purpose. One of these makeshifts which proved to have plenty of "go" in it, despite its clumsy and lumbering appearance, had as its motive power the single cylinder engine of an old "one-lunger" runabout of the vintage of about 1904. This was mounted on a frame of heavy scantlings which probably weighed as much as did the runabout itself when in its palmiest days. The runners appeared to be "Brobdingnagian replicas" of the usual Dutch wooden shoe, shod on the bottom with common strap iron. There were three of these, with the apex of this novel three-point support at the rear just under the pilot's seat, and it served as a "steering skate." Two ordinary low buggy wheels with their tires ornamented with ice hooks were mounted on a cross-axle just back of the motor, and the latter drove this novel transmission by means of a chain. It might be called an ice-friction type, the friction surface being automatically renewed by nature as fast as it wore out. Such a contrivance would never be popular with the skating fraternity, however, except where there was an unlimited expanse of ice for it to work its surface-destroying propensities upon, and this is equally true of all the numerous forms which depended upon spiking the ice for their

tractive power. They might serve as markers for the ice-harvester and thus invade another field in which the gasoline motor has not as yet succeeded in replacing the one driven by hay, oats, and a flow of language. As a fuel tank, the old one-lunger with the buggy-wheel drive had a common five-gallon gasoline can and a piece of garden hose, while its ignition equipment was the same as that with which it originally appeared. At burning up the road, such a miscellaneous assortment of discarded odds and ends would not cut much of a figure, in fact the old runabout when at its best did not have a cruising speed much in excess of twenty miles an hour. But as an ice-streaker it was a winner in its class and could give points to the ice-boats. What is more, it didn't run hot despite the fact that the motor had been robbed of most of the cooling apparatus with which it had been equipped originally — and running hot was its long suit before its native habitat had been transferred from the road to the ice. It had the reputation of being able to overheat under any condition that its owner might want to run it — except that of coasting down a long hill with the motor dead.

— C. B. HAYWARD.

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REAL SPEED AND SAFETY

NONE of the friction-driven type of ice-motors are of the greatest success when it comes to real speed. They can go and go fast, with far less power proportionately than the most efficient of modern motor cars when used on the ice. They are a great deal safer on the ice, moreover, for their weight is only a fraction of that of a fully equipped, high-powered car, and their speed is usually high enough to take them over uncertain places that would be risky, to say the least, for a heavy machine. For these two reasons interesting developments of the ice-streaker are to be expected, and it will unquestionably prove a popular class of ice racers in the winter sports of the future.

But when it comes to speed — real speed, the kind that can be said legitimately to annihilate time and distance — the hybrid that is really an ice-aëroplane without wings must be awarded the palm. This is nothing more or less than an aëroplane propeller and a gasoline motor on runners — the other details do not seem to count very much. The propeller is chain-driven from the motor so that its speed is two or three times that of the latter. It all depends on the propeller, of course, but the combination is such a speedy one, regardless of how it is put together, that a high degree of science in its design is not essential to its success at the present stage of the development of the sport. Of

course, it has to have a seat for the "ice-motorneer" and some form of steering gear — the simpler the better; its irreversibility will not count for much. The less it is used when counting off the miles at the rate of two per minute, the more chances there will be of arriving right side up and all shipshape, Bristol fashion, at the finish.

Whether it is two miles a minute or a mile in two minutes, streaking it over the ice is no sport for the weakling. The conditions are about on a par with those encountered by the aviator, who, by the way, must be counted in "among those present" on the ice of the Hudson River in February, 1912. The Wright biplane fitted with hydroplanes or pontoons is amphibious and likewise "icephibious." One of them demonstrated its ability to travel on the water, on the ice, or in the air, which would be of no small advantage to the man at the helm of an ice-streaker who was not sure of his ground — ice, rather. Brakes usually take the form of sprays or spikes, but it takes a certain amount of time and distance to bring a ton weight, travelling at a speed of 195 feet a second, to a stop, so it would be a real comfort to be able to rise a bit and skip over a hole, instead of having to make a frantic effort to use the brakes, or take one's chances with centrifugal force by attempting to go around it.

But then you cannot have extremes of speed and safety too — they do not go together. The addition of supporting planes to the ice-streaker would cut its travelling ability in half or reduce it even more.

In fact, there is something about a big, glistening expanse of ice that affects the senses and brings on a form of insanity, the chief symptom of which is a tendency to indulge in

foolhardy performances. It exhibits itself in other ways, too, but in none so plainly as this. We always have with us the man who rocks the boat and the perennially recurring specimen who didn't know it was loaded. Maybe they are one and the same, and the rock-the-boat idiot of warmer weather is the man who is always desirous of learning whether blow-holes and thin places in the ice will really hold, or are only apparently dangerous.

The manifestation of this mania was bad enough before the day of the motor on the ice, but armed with this such a man becomes doubly dangerous to himself and to any one foolish enough to trust his life with him. In a thickly settled community, such as borders the lower Hudson, one cannot expect weather cold enough to insure the freezing of a solid surface from shore to shore for any distance. The current of the Hudson River is very swift at places, due to the differing conformation of the shore lines, while at others there are streams of warmer water flowing across the current, and representing the discharge from the outlets of trunk waste lines. These and similar causes tend to form weak spots in unexpected locations.

Yet there are never lacking those who will take the chance just to be able subsequently to enlarge upon such an exploit as the trip from Tarrytown to Newburgh on the ice of the Hudson made by ————, of the former place in his Cadillac. Now any full-fledged touring car is a heavy weight when it comes to navigating an unknown stretch of ice, as it is only once or twice in a generation that the Hudson freezes solidly enough in its lower stretch from Peekskill down to permit of going on the ice in a car at all. Such a thing as travelling it in an automobile was accordingly an

unheard-of event. The round trip covers a distance of about seventy miles, and it was made in about three and a half hours, which was excellent time, considering the numerous difficulties met with. In many places there were fissures in the ice which made the going precarious. At one point, between Bannerman's Island and Storm King Mountain, beneath which the great siphon for New York's new water system passes, the car came near turning turtle in attempting to surmount an ice hummock. Hardly had this happened when a fissure had to be jumped. Fortunately it was visible for some distance ahead so that the car was brought to a stop before running into it. The distance was easy enough for a man to hop across, but wheels don't hop — at least not automobile wheels at any rate. Either to preserve his own skin or to prevent his machine from being damaged, the average motorist would have looked for a way around, or called it record enough for the day and have gone back to the starting-point. But with this man it was evidently "Newburgh or bust." The car was run back for about half a mile, and then let out at full speed in the attempt to jump the gap. The forward wheels landed safely on the solid ice of the other side, but the greater weight of the rear end of the car caused it to sag so that the driving wheels struck the edge of the opening with full force and were submerged to their hubs, which, of course was good for the wheels. Fortunately a quick change of gears and clever work with the throttle enabled the car to pull itself out of the hole.

— C. B. Haywood.

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MOTOR SLEDS ON SARANAC LAKE

THE charm of great speed is one that appeals to almost every one, and many a man would delight in a racing automobile were it not for the danger and expense; but the motor ice-sled offers terrific speed along with perfect safety and at a comparatively slight drain on the purse. In fact, if one has an automobile from which the engine may be used, the expense can be kept very low indeed. But do not think that rushing up and down a ten-mile lake at full speed is the only fun that may be derived from one of these machines. To run up a lake towing a toboggan or two and have a winter picnic on the shore of some island is to live a real day; or to glide lazily in and out among the throngs of skaters with a machine that obeys the slightest touch on the throttle or wheel is such a simple but yet pleasing experience that the automobile seems forever after dull.

The first experiment in motor ice-boating at Saranac Lake was made in the winter of 1909 by H. Webb Hyde of Boston. He installed a six-horsepower engine in the hull of an old experimental hydroplane, and with a propeller roughly hewn from a single stick, he obtained a speed of thirty miles per hour. The following winter, J. Benson Marvin, Jr., of Louisville, and Charles S. Palmer of New York, joined forces with Mr. Hyde. They increased the horsepower to ten and constructed a more efficient fan with

which a speed of forty-five miles per hour was obtained. The next year they built a sled entirely of iron and equipped with a thirty-horsepower, six-cylinder, air-cooled engine. The only official time trial of the machine was run on ice covered with a coating of snow. But despite this handicap a three-quarter-mile straight course was made in twenty-nine seconds, or ninety-one miles per hour. . . .

The early sled, built from the hydroplane hull, is called the "Amphibia," for with its boat-like body it is equally at home in the water and on the ice. The large one incurred the name of "Blasphemia" during the progress of forging the front runners. There are two sets of runners — the main sled forward, which carries one thousand of the twelve hundred pounds total weight — and a pair of steering runners in the rear. The bob was originally built with but a single runner in the rear, but with this construction the control was so uncertain that two runners were afterward adopted. The front sled is made of two by three-inch angle iron, and it is the edge of the three-inch side that runs on the ice. The bearing surface is seven feet long and the tread five feet. The runners are joined by arches of the same material. On the crown of these arches are bolted four sets of semi-elliptic springs, and these support the main frame. The rear runners are two feet long, cut from five by five-eighths inch bar iron. They are bolted through the centre to rods of one and one-half inches diameter that run up through the frame, and above the frame are bent toward each other to form tillers. These tillers are connected by flexible bronze rope to the drum on the steering wheel. The toes of the runners are linked together by a cross-bar of gas-pipe, so that they must always remain

parallel. Each of the steering-rods runs through a coil spring, and these springs carry the rear weight of the sled, or about two hundred pounds. The omission of springs is the greatest error that the novice usually makes; for high speed is impossible in an absolutely rigid frame, and even the smoothest ice has some bumps. The main frame is made of three-inch channel iron hot-riveted together. It is twenty-three feet long and twenty-six inches wide and has suitable trussing.

The engine is placed centrally over the forward sled and is tipped at an angle of four degrees. It is connected to the shaft by a universal joint which allows three degrees more; so that the driving shaft has an angle of inclination of seven degrees to the horizontal. This inclination raises the rear end of the shaft sufficiently to allow clearance for an eight-foot propeller. Inclining the shaft in this manner is not only simpler, but is much more efficient than driving the propeller with a chain from a horizontal shaft.

A number of propellers are always kept on hand. They are of various sizes and shapes, from a thin slender stick of wood seven feet long with very small blade area, but with a pitch designed to give one hundred and twenty miles per hour, to a propeller eight feet long with blades eighteen inches wide, giving them a tremendous area and a very strong thrust, but having a pitch designed to give thirty miles per hour. This propeller is used when running the ice-boat out to the lake. Besides the propellers, it is also necessary to have an additional set of runners, as the thin ice-runners would be entirely unsuitable for travelling over snow-covered roads.

— *Scientific American.*

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ICE-YACHTING

ICE-BOATING is the king of American winter sports. To those who have never seen ice-boats the records of their achievements in the way of speed read like the wildest dreams of Jules Verne, and a description of the sport of sailing on one sounds like the ravings of a lunatic. By him who has mounted the windward runner of one of these skeleton craft and felt her suddenly rush forward over the ice, while the swirling blast heeled her over until he was lifted high into the air and felt as if he could, by loosening his hold of the shrouds, swing far off into the measureless air, the sensations are never to be forgotten. Now the boat, fanned by a moderate breeze forward of her beam, glides peacefully and smoothly along the dark surface of the ice. Now she is put about, and with a strong wind on her quarter, she dashes madly forward. The black ice, with the bubbles of the water underneath clearly visible, and the cracks here and there, becomes a dark gleaming mass, silvered over with lines of flying white. The iron runners whisper a humming song as they skim over the ice. Now she strikes a windrow, and the scales of white ice go flying in every direction. Now the wind is on the beam, and the boat "rears" until her windward runner is at an angle of forty-five degrees; and again she rights herself, and the man who stands upon the runner-plank, clinging to

the weather-stays, feels as if he had left half of himself up in the air from which he has just descended with such an indescribable sensation. Now the sky darkens; clouds sweep up from the horizon; the wind comes tearing down the gray mountain sides, bearing in its bosom that mad whirl of blinding white called a snow squall. The sharp blast strikes you in the face and stings; the driving, pitiless snow beats into your eyes; the wind howls and whistles through the wire rigging, striking it into music that has all the wild dissonance of the Æolian harp. The stricken craft starts and shivers and bounds forward into the midst of all the strife and writhing of snow and wind, and you are swept onward at top speed through the gloom. The wind roars out of the mainsail, as yonder comes the Albany express train, thundering along the riverside fifty miles an hour. The engineer may throw open his throttle-valve, and send his engine to its greatest speed. He can manage seventy miles an hour, and the train rocks and reels and roars over the steel rails. But you are gliding in an enchanted land. As steadily and as easily and as lightly as yonder bird you skim along, and even the mighty engine falls behind; for are you not on an ice-boat? And seventy miles an hour becomes a gentle pace beside your wondrous flights at eighty and even ninety!

Before going further into an account of this marvellous sport, it is natural to inquire, what is an ice-boat? Makeshifts have been attempted both in America and elsewhere (we believe) by help of cutter-yachts of small size shod along the keel with steel runners. These, however, are clumsy and inartistic. The true ice-boat is a thing by itself. Englishmen looked with astonishment and distrust

at the first American trotting-wagon, with its light body and web-like running gear. What could they say to a yacht whose total weight was eight hundred and fifty pounds? It seems incredible, yet such is the weight of an ice-yacht measuring fifty feet over all. She consists of only a few but strong timbers, sitting close to the ice and looking for all the world like a huge water-spider, with a sail on her back. The chief timbers of an ice-yacht are arranged in the form of the letter T. The perpendicular line of the letter represents the centre timber, which runs from the foot of the mast to the stern of the boat. The horizontal line of the letter represents the runner-plank, on each end of which is an iron runner very much like a large skate. Indeed it is usually called a runner-skate. On the top of the runner-plank is the mast-bench, in which the mast is stepped. From the stern end of the centre timber side rails run diagonally to points about halfway between the mast and the ends of the runner-plank. One or two braces cross the centre timber from one side rail to the other. Mortised into the forward end of the centre timber is the heel of the bowsprit. In order to get an idea of the proportions of an ice-yacht we here give the dimensions of a good-sized boat that sails on the Hudson: length of centre timber, 26 feet 9 inches; length of runner-plank, 19 feet $3\frac{1}{2}$ inches; length over all, 50 feet 10 inches; sail area, $538\frac{1}{2}$ square feet; requisite thickness of ice for sailing, 4 inches; cost of building, $450.

We have purposely omitted three of the main parts of the hull of an ice-yacht. These are the runners and the rudder. The runners are fastened between chocks of white oak by an iron bolt which acts as a pivot, allowing the

runner-skates free play up and down like a rocker. This is of course very necessary in passing over uneven spots in the ice. A rubber spring is frequently inserted over the skate to ease the jolting. The runner-skate is made of white oak shod with iron. The whole contrivance looks very much like the profile of a foot with a skate on it. The curve in front is high to admit of easy passage over rough spots. The iron is bevelled and must be quite sharp. All first-class yachts have two sets of runners, one very sharp for smooth ice and strong winds, the other somewhat duller for rough or soft ice and light winds. The boat is steered by a rudder-skate. This is a runner like the others, set on the end of a rudder-post and turned by a tiller, as in a water-boat. This skate must be very sharp, in order to take a good hold on the ice. The boat has a small cockpit — or box, as it is called — for the accommodation of the helmsman. This completes the hull, which, it will be seen at once, is a mere skeleton. The timbers are usually of white pine, ash, or spruce, and may be oiled, decorated, or mounted with nickel plate and brass trimmings, according to the owner's taste and means. The rig is usually that of a sloop-jib and mainsail, though the cat-rig, consisting of mainsail alone, is not uncommon. The lateen rig has been tried with success, but the sloop-rig maintains its position as the favorite. The standing rigging is generally constructed of the best wire rope, and the running rigging is made as simple as possible. The appearance of one of these boats is much like that of a catamaran. The skeleton-like construction of the hull, the smallness of the deckroom, the low position of the bowsprit and its utter lack of "steve" (or lift), all combine to give the boat this appearance. The

jib is very wide and runs far out in front, the hoist of the gaff at the peak is knowing, and the boom projects aft in a significant manner. The whole cut and build of the boat makes her look like just what she is, — a racing machine, pure and simple. The expert yachtsman who had never before seen an ice-boat would, at the first glance, decide that one of these vessels had light heels.

From what has been said of an ice-boat's speed it may be inferred that accidents are numerous. Such, however, is not the case. At the present time so great is the skill of ice-yachtsmen that a mishap of any kind worse than a frost-bite is rare. The sailing of an ice-yacht is totally different from that of an ordinary water-craft. The best sailor who ever manned a wheel would find himself at a loss on an ice-boat until he had learned her peculiarities. Her sheets are always hauled in and her mainsail trimmed flat aft. If the wind is on the beam and is so strong as to make her sail sideways or "rear up" too much, the boom is sometimes let off a foot or two. The steering of an ice-boat is a novelty to an old sailor. She minds her helm so easily, and the helm itself is so easily turned, that at first one is filled with wonder; yet when one remembers that there is no rudder ploughing through heavy opposing masses of water, but only a hard, sharp piece of iron gliding over a surface of perfect smoothness, it does not seem so strange after all. The helmsman, then, needs a cool head. Too sudden a twist of the tiller, when flying over the ice, will spin an ice-boat round almost on her own centre, and will probably result in hurling her crew off into space. Steering among obstacles, such as hummocks or cracks, requires the greatest care. First the boat is headed so as to spill (or lose) the

wind, and then she is run across the crack at right angles so that both runners will go over it at once. The speed of an ice-boat makes it necessary in cases of emergency to have a way of stopping her quickly. Of course she can be stopped, and generally is, by running her into the wind's eye. She can be stopped suddenly by luffing into the wind and then turning the rudder-skate straight across the stern, when it scrapes the ice and acts as a brake. An ice-boat going at an ordinary rate of speed can thus be stopped in twice her own length, but this method is a great strain on the boat, and is employed only in cases of great need. An ice-yacht is anchored offshore by heading her into the wind, loosening the jib-sheets and turning the rudder crosswise. To start an ice-yacht from this position, the jib-sheet is hauled in, the stern is swung round, and she is pushed until the sails fill. The helmsman is the only person who occupies the box or cockpit. The crew stand on the windward runner and balance themselves by holding the shrouds. This keeps the windward side down, and relieves the lee runner of some of the strain. Of course when the wind is high, she needs more weight in the box to keep the rudder well down on the ice and prevent her from sliding to leeward. Ice-boats sometimes capsize, but the motion is very easy, and the crew are dropped off on the ice very quietly. An ice-boat oftens runs a considerable distance on her lee runner and rudder. She is blown into this position by a very heavy wind, and when she elevates her bow in this way, she is said to "rear up." A clever sailor can keep her poised so for some time. Of course she must be eased or she will go over. There are two ways of easing her. If beating to windward, she may be righted by luffing, as an ordinary

water-boat would be. If running with the wind, she may be eased by paying off the sheet. Then the windward runner sweeps down, and the man who stands on it, as it drops out of the air while it is tearing forward at enormous speed, learns that there are more things in heaven and earth than were dreamed of in his philosophy. The boat will occasionally run upon thin ice and break in, but this is not a serious matter. The lee runner cuts through the ice and stops her headway, and she then upsets before her stern is off the sound ice.

The season for this sport, unhappily for those who love it, is, in the vicinity of New York, usually very short. Sixteen good days in the course of a winter form an ordinary season. In a hard winter the ice-boats hold high carnival on the Hudson and Shrewsbury rivers all the winter.

The yachtsman's costume may not be picturesque, but it is serviceable. He wears a leather coat, or several cardigan jackets under a heavy pea-jacket; his trousers are tied around the ankles or else tucked into the legs of woollen hose; he wears linen drawers over woollen ones; he has a good pair of "arctics" on his feet and a fur cap pulled down over his ears. When snow is flying, he has fine wire goggles over his eyes, and a wire covering for his mouth. In spite of all this the ice-yachtsman sometimes suffers from frost-bites. He always wonders how he got them; for, in the enthusiasm and wild excitement of sailing, he never felt cold for a single moment.

There is one other point in the sailing of an ice-boat; but we must consider it in connection with her speed. This speed is simply marvellous; and to those who have never seen an ice-boat dart away and shrink to a speck on the

Photograph by American Press Association, New York

AN ICE-SLEIGH IN HOLLAND

horizon in a few minutes, it is wholly incredible. Yet the facts exist. On February 12, 1879, the *Lucille*, owned by Captain Winslow, sailed from Poughkeepsie to New Hamburg, a distance of nine miles, in seven minutes and ten seconds. The *Comet*, *Phantom*, *Zephyr*, and *Magic* sailed in company ten miles in ten minutes, and most of the time so great was the wind that the windward runners of the boats were elevated at an angle of forty-five degrees.

Now how are we to account for this speed? Several facts must be noticed. In the first place we must take into account the very small friction of the vessel on the ice. Moreover, such heat as is generated by this friction is at once absorbed by the ice. Again the ice-boat never makes leeway except in very high winds. If put directly before the wind, she will, of course, sail no faster than the wind blows. If it is a breeze of fifteen miles an hour, the boat will sail at that rate. The peculiar phenomenon of running out of the wind when sailing free sometimes occurs when the wind is gusty. A sudden blast drives the boat ahead, and then there is a lull when, for a moment, the boat runs faster than the wind, and consequently her sails flap idly for want of the breeze, which has been left behind. The ice-boat's better course is with the wind on the beam, because thus she constantly has the full force of the breeze exerted on her sails and increasing her speed. Moreover, the ice-boat always tacks in going to leeward as well as to windward. The greatest possible speed can be gotten out of her when she is sailing with the wind on her quarter. On this course she has a constant forward push on her sails, and, as she goes diagonally along the track of the wind, she is less retarded by the resistance of the air than on any other

course. Hence an ice-boat in sailing ten miles to the southward with a northerly wind will take a zigzag course, running alternately to the southeast and the southwest, and will reach her destination very much more quickly than by sailing a direct course. This is probably the only case in which a straight line is not the shortest distance between two points. The greatest speed of the ice-boats is not recorded, because it always occurs when no one is expecting it. The boat seldom sails in a straight line for even a mile. When working to windward, which is her worst course, she will make from ten to fifteen miles an hour. When beating to leeward, as it is called, or sailing with the wind abeam, she goes at times at the rate of from eighty to one hundred miles an hour. And the man who has never been in an ice-boat before finds that his sensations are of a nature beyond the power of words to describe.

— *The Saturday Review*, London.

ICE-YACHT SAILING AND RACING

THERE is no question in my mind that, given an absolutely smooth surface of ice of sufficient area and extent, and a wind of the proper velocity, an almost unlimited speed might result. I see no reason why under such conditions, an ice-yacht could not be driven at the rate of one hundred miles an hour. But sailing on the Hudson River, whose average width is not over three-quarters of a mile, necessitates keeping a course clear of each bank, which means that much loss of speed occurs. . . . A good many years ago I laid off a course one mile long, accurately surveyed, and with a beam wind several yachts, which are very much inferior in speed to those existing to-day and much smaller in size, sailed repeatedly over a measured mile, when the average speed for at least ten trials was a mile in fifty-nine seconds. However, there is no question as to the speed of an ice-yacht, neither is there any doubt that they can and do sail faster than the wind. . . .

Many men I have known can sail an ice-boat passably well. Some of them are excellent helmsmen when it comes to a racing or cruising yacht on water, but somehow or other they do not get the knack of sailing an ice-yacht properly. Now why should it be difficult to sail the latter if you understand sailing the former? Well, the difficulty lies in this fact, that the whole secret consists in sailing her

to leeward. Anybody at all conversant with helmsmanship, as applied to water-sailing, can get on an ice-yacht for the first time and sail her to windward.

A hearty laugh has arisen from teasing some novice into taking out a small ice-yacht. We say the wind is not too strong, and that it is from the north, and he is told to get aboard and sail up the river for a mile or so and then turn around and come back. We tell him, with absolute truth, that he will have no difficulty in sailing. We remark casually that perhaps he won't come back so very fast, but he will get up there all right; and true enough he will. He will have no difficulty at all in going up to windward, and this naturally gives him confidence, and he says to himself, "This is very easy; anybody can sail an ice-yacht."

He reaches the place where he should turn around and come back to receive the congratulations of his friends, who are awaiting with much pleasure his return. Up goes his helm, and immediately the boat he thought was so easy to sail starts off at a terrific rate of speed, and he begins to lose a little confidence. His first impulse is to stop, especially as he sees himself rapidly approaching the opposite shore. He luffs up into the wind, but as she does not stop he goes on the other tack. He gets out into the middle of the river and says, "I will just turn and come back," so he pays her off again, when the same performance recurs. She immediately develops a high rate of speed; he is running toward the other shore much too fast for pleasure, and now he says to himself, "I will just sail her easy and then try to throw her right off."

So, by this time having gone far beyond the point at which he desired to turn around, he starts very slowly.

We will say he succeeds in getting his yacht before the wind, but the chances are the action was so sudden that she has not only gone off before the wind, but she has come right around back on the wind again, with a very strong probability that the unfortunate tyro has parted company with his craft. Let us assume that he has done so and that he regains his charge with perhaps a somewhat diminished confidence in his own powers of sailing. Things don't look quite so easy as they did. He begins to think: "Well, I will try this again, but one thing is sure, and that is, I must stay aboard." So, starting again after several unsuccessful attempts to wear off before the wind (during which he is perhaps now double the distance from home), he does succeed in getting his boat directly before the wind, but he finds that she hardly moves. He sees other yachts with laughing occupants sailing in circles all around him, travelling at a high rate of speed off the wind and on the wind, and he endeavors to imitate their example.

One minute he is tearing along forty miles an hour, and the next minute is not sailing at all, until finally, we see him strip off his coat, get down to his shirt sleeves, and with perspiration running down his face, ignominiously push his yacht toward home, where he knows he is sure to meet his jeering and smiling friends.

This is not an exaggerated picture at all. It has happened repeatedly, and that is why, although almost any one can sail to windward, sailing before the wind requires a special education. Let us see if I can make this plain.

In the first place an ice-yacht always has her sails trimmed flat, very flat, under the conditions of an average moderate breeze blowing up or down the course desired to be sailed

over. The trend of the Hudson River (where most of our sailing is done) is practically north and south, and therefore northerly or southerly breezes are the best, since they give true windward and leeward work. Now it may be asked why the sails should be trimmed so close, or why in going free, the mainsail should not be slacked off, as is the case in water sailing.

It can be easily understood that if, when running before the wind, the mainsail were slacked off at right angles to the direction of the wind, the speed of the yacht to leeward would not be greater than the wind. But it has been proved beyond question that an ice-yacht can travel faster than the wind, and we know that to reach a given point to leeward as quickly as possible the angle of the boat and the angle of her sails with the wind must be one hundred and fifty degrees, or, in other words, about thirteen points from the wind; and that under these conditions the advance to leeward would be one and one half times that of the wind itself. To make that angle good it is plain that the sails must be trimmed flat aboard. . . .

It is impossible at times to prevent a sudden sharp luff into the wind during squalls, when a yacht is liable to rear up; that is, the windward runner is lifted high into the air and the yacht runs along frequently without minding her rudder. Some yachts, though, when nicely balanced (even though they are reared up), can be steered under these conditions, and when the trick is earned, one can raise and lower the windward runner at will, dropping it down so gently that no jar at all is felt. Others again come down very often with sufficient force to break the runner-plank in two.

It may be asked: "Why do not the yachts upset or blow over when their windward runners are high in the air, almost at right angles to the ice?" They do sometimes; but if a yacht has good way on, it goes over so far, and then the end of the main boom bears on the ice and prevents it's capsizing. But should the yacht slow up by reason of running into either shell ice or soft spots, the chances are that over she goes, until the end of the mast strikes the ice. However, she is easily righted, and if nothing has been broken, is soon sailing again as if nothing had happened, and the crew have no wet jackets to think about.

— ARCHIBALD ROGERS.

Outing, March, 1907.

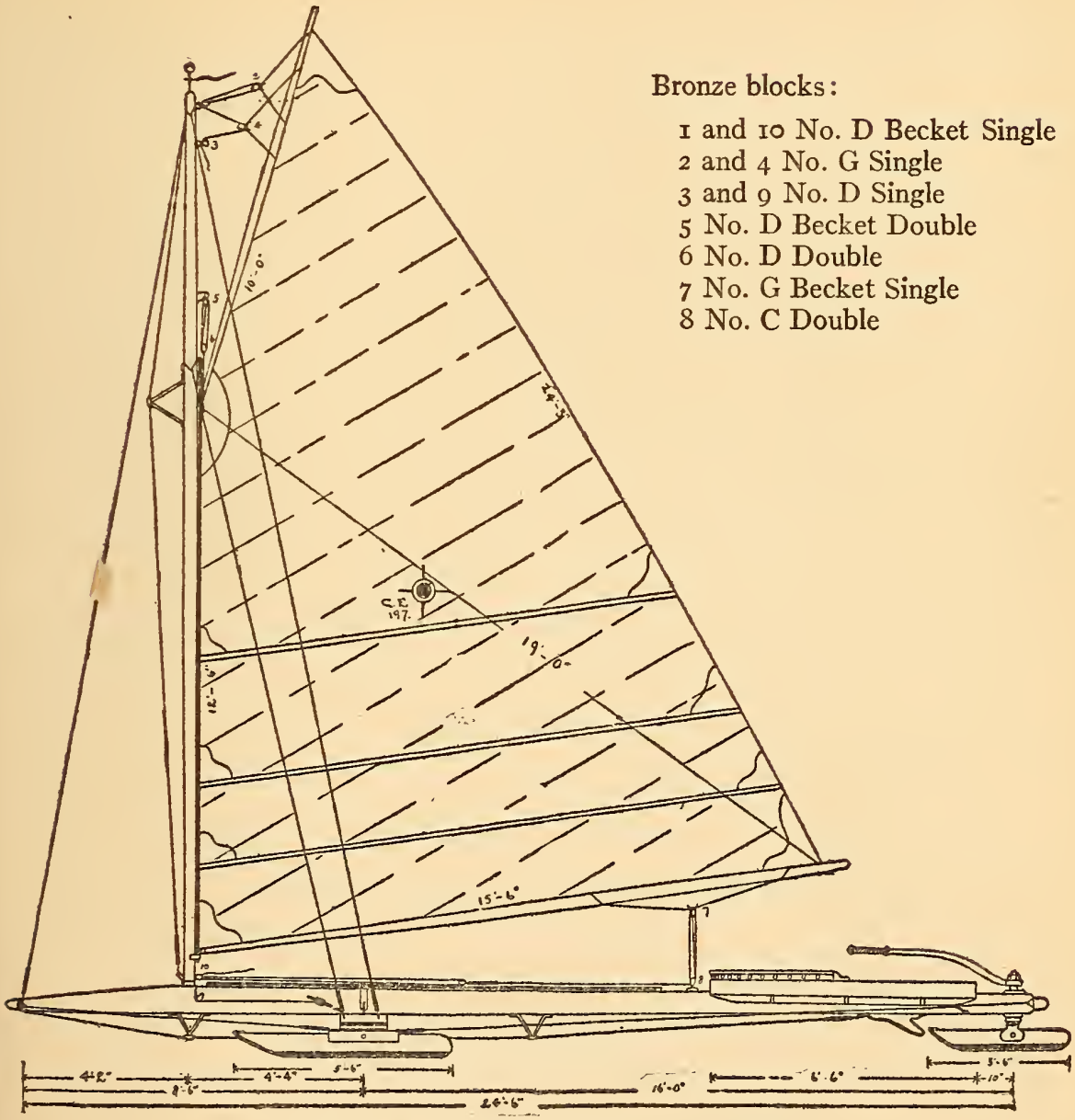
HOW TO BUILD A SIXTH-CLASS ICE-YACHT

In building an ice-yacht, the first thing is to make up your mind what the cost is to be. Don't get the idea that a good one can be built for almost nothing; but they can be built for a reasonable price, especially if the owner does all the work, except the sails and perhaps the runners.

Order materials and fittings at the same time to avoid delay, and do not wait until late in the season; for, while most of the work can be done in the barn, the whole boat has to be set up outdoors to see that everything fits in place, splicing halyards, etc., before putting on the ice. Never set up your boat on the ice for the first time unless your barn or shop is right on the shore.

The very best material for backbone and runner-plank is butternut, but if that cannot be obtained, use white pine. For spars get spruce. . . .

The first thing to make is the backbone, which must be eight or ten feet. Nowadays it is next to impossible to get one stick of timber long enough, so a splice is necessary, and the place for making it will have to be decided by your lumber. After fitting up your joint, put it together with the best waterproof glue, and half-inch lag screws from the under side only. The finished backbone should measure eight inches deep at the mast, and taper, on the top side only, to six inches at the stern, the bottom being perfectly



DESIGN FOR SIXTH-CLASS ICE-YACHT

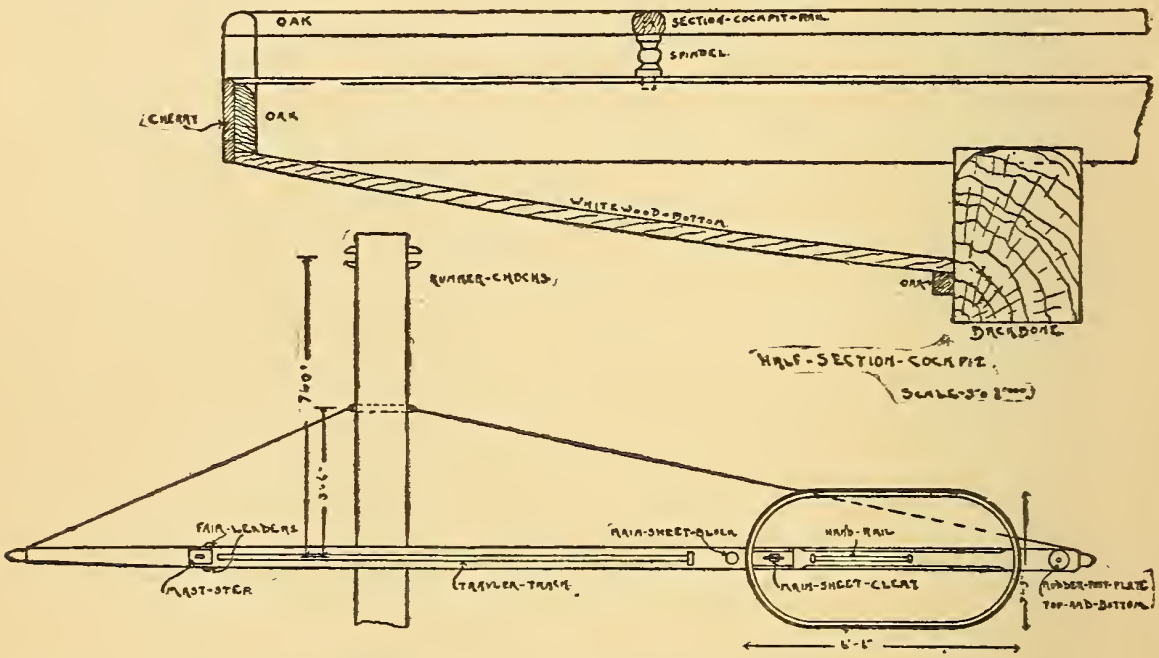
SPAR DIMENSIONS

Mast 22′ 0″	Gaff 10′ 8″	Boom 16′ 3″
Head 3″	Peak $2\frac{1}{4}$″	After-end 3″
Centre 5″	Centre 3″	Centre 4″
Foot 3″	Throat 2″	At mast $2\frac{1}{2}$″

In this cut are given all measurements for the proper placing of each part, and they should be followed exactly, for on the relative position of mast and runner-plank depends the easy handling qualities of a boat. Sail can be ordered from dimensions given.

straight. The sides also should be six inches thick, running straight from the mast aft. The bowsprit should be cut to four by four, tapered on all sides. Round the nose and tail for the loops in the wire guys.

The cockpit cannot be made too strong, as most of the rack comes there. Have the rims made of oak covered with cherry. They should be bent in pairs, as by so doing they



DECK PLAN AND COCKPIT DETAIL

These drawings show the construction of the cockpit and where it is placed on the backbone, also the manner of trussing the boat with side guys. Be sure the plank and backbone are square.

will fit when put together. Do not try to have the whole rim bent in one piece, but make a splice on each side.

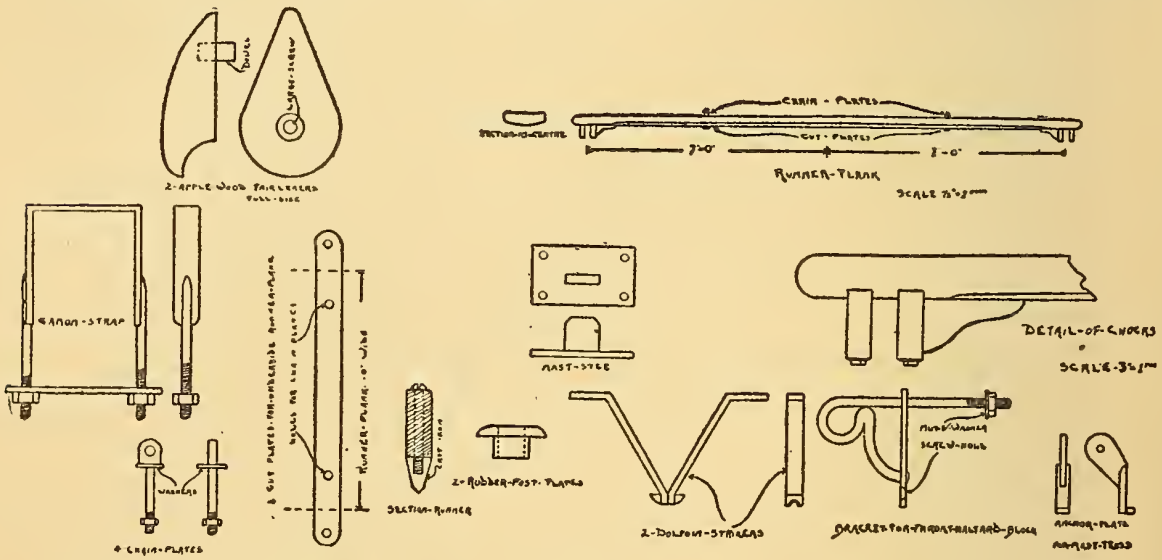
Splice your oak rims together, glue and screw thoroughly, and when the glue is set, fit them to the backbone, cutting each rim so that it fits tightly over the backbone for about half an inch, and lag fast from the bottom of the backbone. Cut out your whitewood bottom a little large, and, after screwing oak strips in position near the bottom of back-

bone, as shown in drawing, pour hot water on one bottom piece and as soon as possible fasten it permanently in position with plenty of screws. Do the other side in the same manner, trim off the outside edges, and plane true with the oak rim. The bottom should be bound with band iron to prevent splitting. The cherry rim is now fitted, one piece at a time, the lower edge covering the whitewood bottom, and the top edge projecting a quarter of an inch above the oak rim. Then fit the cherry rim on the other end in the same manner, allowing for a splice, and when both are properly fitted, glue and screw in place, letting in the heads of the screws so that they can be plugged. Where the cockpit rail of oak goes on, the cherry rim should be cut down flush with the oak, and put on with dowelled spindles. They should be thoroughly glued and driven in tight with a block under each end of the rail. If the spindles and blocks are of applewood, they will look better.

The runner-plank must be of one piece, sixteen feet long, four inches thick, and fourteen inches wide. The bottom is left straight from end to end, and the top side is worked in a true curve from the full thickness in the centre to two and one-half inches at the ends. The edges of the under side are now worked out to give the appearance of a curved plank two and one-half inches thick. Do not work out the under side quite up to where the chocks are put on.

The chocks and braces are of one and one-half inch oak, and are put on in the manner shown. Measure seven feet each way from centre of plank and mark. This should be the centre of each runner, which should be one and one-half inches thick. Allowing for half the thickness of the runner, screw the inner chock of one end in position after

letting it into the plank one-fourth to one-half inch, and fasten with four and one-half inch lag screws from the bottom. Be sure to get the chock square both ways. The chocks should be made in pairs, and the holes for runner-bolts bored before bolting to plank, allowing three-fourths



This shows the manner of lagging the chocks to the plank and part of the blacksmith's iron work. The rudder-post plates should be cast of brass and turned to fit the post.

of an inch clearance between the top of the runner and the plank.

With a chisel mark one edge of the plank at the centre with A for aft and the runners P and S for port and starboard.

Now bolt the runner corresponding with the chock you have in place to the chock and lay off for the inner chock at the other end, and fasten the chock with one lag and a screw-clamp to the plank. Now bolt the other runners to this chock and shift until the running edges of the runners are absolutely parallel. Upon this depends the sailing of the boat, especially in light weather.

Mark the second chock and let it in as far as the first.

Then try the runners again, and if they are not parallel, make them so. There should be four brackets placed about two inches from the edges of the plank, carefully fastened with large wood-screws to both chock and plank. In letting in outside chocks allow room for the runners to work freely, for if they bind, the speed of the boat will be gone. When chocks are all on, saw off the plank three inches outside of chocks and round up.

Of course, all the work should be well planed and sand-papered, and as fast as each part is finished it should have a good coat of boiled oil. This is better than wood filler, as it keeps out the weather when varnish is scratched off, and does not let the wood blacken so soon as it otherwise would.

Next come the spars: in some localities it is hard to get clear spruce large enough for the mast, and it is necessary to buy this spar of a spar-maker; but it can be made more cheaply at home if the lumber can be found. It should be twenty-two feet in length, out of a five-inch stick tapered to three inches at each end, the tapers beginning about two feet from the centre.

Purchase the ice-yacht runners with tillers and rudder-post. They should be of the very best quality of oak with cast-iron shoes.

The running edge should be square and filed very sharp in a true curve from end to end, the lowest part being directly under bolt hole. This hole should be about three inches aft of the centre of the shoe. The forward end of the runner is bound with band iron turned up over the nose to prevent the splitting of wood when running through rough ice.

The bumper of oak should also be bound with band iron and lagged to the backbone so it is clear of the rudder by a half inch. This is to prevent the rudder being broken in rough ice.

The dolphin strikers should have a piece of gas-pipe in the bottom to prevent the chafing of the bobstay, and a mast truss is made the same way, except that it is ten inches deep, while the dolphin strikers are six and one-half inches.

The two rudder-post plates should be cast and turned of either brass or bronze.

There should be a ferrule on the bottom of the mast, the inner end of boom, and the anchor plate, for the mast truss should go inside the ferrule with the lip under the mast foot.

The chain plates should be placed two inches from the edge of the plank, going through the guy plates with the nut under side. The drawings show where the fair-leaders and halyard cleats go, one halyard leading to each side of the backbone and carried in a coil lashed to the runner-plank.

For the hand-rail use bronze hand-rail stanchions with gas-pipe running through, wound with heavy cotton cord, shellacked and varnished with several coats.

All iron work should be filed smooth and given two coats of aluminum paint, and all woodwork should have two coats of the best spar varnish, rubbed down between coats.

All standing rigging should be of one-fourth inch galvanized iron wire, spliced and served, and the serving should be shellacked and varnished. Steel wire may be used, but costs considerably more, and is really no better. In making rigging take all measurements from the boat and not from a drawing.

The running rigging is of five-sixteenths manila rope.

Use the bronze yacht locks, and good turnbuckle. Have lock-nuts or cotter pins in buckles to prevent unscrewing.

A Worthen sail hoist complete for boom and gaff with extra track for main-sheet traveller is the best thing yet. Do not use a boom attachment on the boom, but buy a gooseneck and use the boom attachment on the traveller, splicing the end of main-sheet in the after end of the traveller so that the traveller will come nearly to the mast when the sail is trimmed flat.

A section of traveller track of four inches should be cut out to allow the gammon strap to be placed in position, and then screwed down over it. Use boiled oil on the tracks, but if the slides stick, use a little soap.

Three eye-bolts are necessary, two for peak halyards and one for the block at the foot of the mast. In ordering the sail, specify Egyptian cotton if you want the best, made to stretch to measurements given, and order only of a first-class sailmaker.

Corduroy is about the best material for cockpit cushions. Moss may be used for filling if hair is too expensive.

By using galvanized blocks and turnbuckles, mast-hoops and gaff jaws, with a cheaper sail, the cost can be brought under $150. A cover for sail and cockpit of ten-ounce canvas should be made. A sixth-class ice-yacht is one which has less than two hundred feet of sail area.

For this class cat rig has proved the best, being faster both on and off the wind.

With the cat-boat, cast off the bridle block on the main-sheet when leaving the boat with sail up, and there is no possible chance of it getting away.

— J. Sterling Bird.

From *Country Life in America*, by permission.

The Cost of Building a Sixth-class Ice-yacht

Backbone, lumber for	$16.32
Runner-plank, lumber for	9.00
Cockpit rims, steamed and bent	4.50
Oak chocks and bumper	.50
Whitewood for cockpit bottom	.55
Mast made by spar-builder	5.28
Boom and gaff, lumber for	1.89
Runners, rudder-post, and tiller	30.00
Spindles for cockpit	1.50
2 quarts boiled oil	.30
1 gallon best spar varnish	4.00
233 feet $\frac{1}{4}$-inch galvanized iron wire rope	6.99
11 $\frac{3}{4}$-inch cast bronze turnbuckles	24.20
1 dozen $\frac{1}{4}$-inch galvanized wire rope thimbles	.84
Cotton cord for serving splices	.25
Lag bolts for splice in backbone and chocks	2.08
Band iron for cockpit bottom	.50
Blacksmith iron work	12.00
Bronze yacht blocks	8.60
Worthen Patent Sail Hoist with extra track	9.27
Gooseneck polished bronze	2.70
1 6-inch Osborn Racing cleat polished brass	1.00
2 6$\frac{1}{2}$-inch polished brass hollow cleats	1.20
2 bronze hand-rail stanchions	.50
1 dozen brass lacing eyes for boom	.75
3 4$\frac{1}{2}$ × $\frac{3}{8}$ inch galvanized eye bolts	.51
5 2$\frac{1}{2}$ × $\frac{1}{2}$ inch machine bolts for runners	.12
20 pounds $\frac{3}{8}$ inch manila rope	3.20
1 pound $\frac{1}{4}$-inch braided cotton lacing rope	.45
1 pound best yacht marline	.30
1 pint aluminum paint	.65
Egyptian cotton sail	25.00
Corduroy, ticking, buttons, and moss for cushions	8.10
Total	$183.05

THE BIRTH OF THE SCOOTER

STANDING that January morning on Long Island's southern mainland, whose sedgy surface never freezes so hard that it will not sob under foot, a man might look out over the still inland sea of the Great South Bay and beyond it over the white ocean beach to the sharp, dark curve of the unfluttered ocean, and see spring in the world. Frozen fast from shore to beach, from farthest cove to mumbling inlet, the air that crept over the bay was yet so soft, the sky that hung over it so innocently blue, that it seemed as if the marble sheet must surely disappear before another morning.

Three miles away, in the heart of the serene, stiff plain, lay a black furrow, bent in many curves. In it, with main and foresail drawing gently full, a schooner worked toward open sea to escape the ice-lock that had held her for a week. Careless eyes watched her from the mainland, from miles of sleepy marsh, idly desiring to be on her, close hauled for the unrippled Atlantic in that midwinter, summery gentleness of day. Other eyes watched her too; eyes set in keen, hard-lined brown faces, where the life savers of Fire Island regarded her. They saw what the landsmen could not see; what, indeed, only eyes as sharp as the clear gray eyes of gulls might catch — that the baby blue of the cloudless January heaven had a dull shine of hard steel where the sea dipped. They saw, too, high in the air wide sails ca-

reening in a steady flight toward shore. The gulls were coming in, long before noon, not pausing for the feast that the lowered tide had spread upon the open beach.

Down in the unseen sunken sea beyond the horizon, straight east as the parallel of Fire Island's latitude runs, a wind was being born — a cold wind and a great wind. It was drawing in with the young flood, moving with its motion, growing with its growth. When the tide was full, the sea wrinkled and began to move. On the frost-feathered edges of the ice inside of the inlet, a little surf began to run. A mile of ice whimpered. Faint, vague sighs fluttered over the wide plain. Under the floes, the tide, turning to run back to sea, strained its green back. Floe moved against floe, creaked, snapped, and receded. Again they met and drifted apart. Once more they struck, grinding and stayed.

The schooner ran no more in an open lane. Her channel had become an archipelago of ice islets, changing each moment. She tacked, and a field, breaking suddenly adrift, shouldered into her course. She lay on the other tack to pass between two floes, and, before her sheets were taut, the two were one.

The beaches drummed. Beyond them the red sun shone on a running sea. The wind strove hugely to turn back the lusty tide, and the two battled, with ice floes for weapons. Astern of the caught schooner, the secret tide coaxed a floe that bobbed toyingly. Softly it floated, softly it swung under the vessel's counter, with clear splintering sounds it shivered into bits. And at that purring touch, the wheel twirled crazily with its rudder bitten off.

Down went the starboard anchor. It fell on ice and

pressed it under, but a fathom deep the floe held, and buoyed up the half-ton iron. Out roared the port chain and found mud. But the ice had the schooner. When the chain veered out, the bottom gave way to the pull, for it was not a schooner alone, but an acre of moving ice that pulled at it.

The straining sails spoke, thundering. But louder than they spoke the inlet — one ! TWO ! THREE ! the tide backing against the wind and cascading on the bar. Even as torn hands pulled in the stiffened drumheads of canvas by main strength, the vessel struck — once with just a dainty scrape and a velvety glide, as if over soft, soft sands, yielding kindly; twice, with a weary, squatting wallow; thrice, with a smash that shivered to her mastheads. Below there came the trill of little water, flowing musically. Her timbers had started, and the Atlantic Ocean was coming in to see what manner of thing this was.

Now here was such a shipwreck as the winter sea loves, with a scene set cunningly to torment its victims before it took them down; for around the bursting schooner lay too much ice to launch a boat in, but were men to creep out on it, they would be met by encompassing hungry water, — cold and deep and black.

The stanchest life-boat on all the American coast, from Cape Fear to Montauk, could not win through the wicked mass. Yet, from the white dunes of Fire Island, something was coming to help. Little things they were, detaching themselves speck by speck from the beach where the Life Saving Station sits; so little that the lonely figure of the occupant of each loomed up like that of a man sitting on a child's bobsled.

Pitiful things were these to play at taking the place of the mighty life-boats; neither as large nor as deep as a ducking skiff, and set with a mast scarcely higher than a man. But they came with the speed of the blast itself. Scarcely seeming to touch the surface, they skimmed a smooth stretch, with a clinking ring of metal on hard ice. In their course lay a long mile of hummocks — two and three feet high, cast in rough confusion. Straight at them went the little things, mounted them, dipped into the hollows, mounted again, and leaped headlong from the last ones to hit the ice twenty feet away — and still to tear ahead unchecked for even an instant by the wild work. Now they hit mush ice, over which surely no thing made of man can go, any more than things can go through it, for it is too thin for the one and too solid for the other.

Churn! churn! churn! The mush spouts off the bows, and oh they go, unhindered, with ice crystals and water spraying high along each side. Out of the mush they spring more easily than ever gull rose from the water, and with a crunch take the hard ice again and speed on faster, faster. But now they are surely doomed! Ahead of them lies black water, five hundred yards across, and they are pointing for it straight at twenty miles an hour and not a hundred yards to make before they leap in and are engulfed!

In they go! White water smashes over them. But instantly out of the froth the little sails wimple and skim on, undeviating. They hit the ice-bank on the other side plumb and do not stop, but slide up on it as a wet seal slides on his floe. Again they take hummocks, almost leaping from top to top of the rough crests. Again they take hard ice, brittle ice, mush ice, ice five feet thick, and ice that is

only a glare over treacherous, lurking.water; and straight and true, unharmed and undelayed they sail and round under the stern of the broken ship.

Next morning her sticks and splintered timbers make dismal black dots along five miles of ice-field, and the surf makes catplay with her wreckage from Fire Island to Tiana Beach; but her crew sits safe and warm in the Life Saving Station, thanks to the Long Island life saver's contribution to nautical engineering, the Great South Bay scooter — sail-boat and ice-boat in one, and the nearest thing to a wild duck that the hand of man has produced.

Men are "scootering" for sport now, all over the Great South Bay from Babylon to Moriches; but the sport is not older than this century, and the scooter has not changed perceptibly in model or rig from the original form devised by the life savers for practical and, often, grim work. . . . It still is delightfully and amazingly simple — nothing except a flat-bottomed, shallow boat shaped like a ducking skiff, shod with a steel or brass runner on each side of the flat keel, and sailed with mainsail and jib, the latter being used to steer the craft, since, manifestly, it cannot carry tiller.

Like the Indian canoe, the Eskimo kayak, the Hawaiian surf-riding boats, and the Malay proa, the scooter, fully as unique and original as they, was born of simple necessity.

Those strange salt-water lagoons that extend from New York east along the south shore of Long Island to the sandy Hamptons present an Arctic problem of their own in winter. No boat can cross them, for there is never an unbroken reach of open water. No man can walk them, for there is rarely unbroken ice. No ice-yacht can sail them, for there

may be a five-foot thickness in one stretch and not half an inch in another. The restless tides will not let the bays freeze smooth. Each change of current makes hummocks up-rear that would wreck the ice-yacht. Each tide opens wind holes and loosens floes in the channels. Thus the only mode of winning across the treacherous and deadly surface from mainland to beach, for communication or life saving, was to drag a flat-bottomed boat on a sled, sliding it off at mush ice or open water and poling or rowing till hard ice was gained again, when the killing work of dragging the heavy craft was resumed. Often it required half a day for men to cross the bay. No man could expect to cross without breaking through hidden holes. Each winter took a toll of dead.

To ease the work of dragging the boats, the life savers at last hit on the idea of setting a tiny sail on the craft when the wind was fair. Gradually the sails were enlarged. Then a bright spirit fastened sledge runners directly to the bottom of the boat instead of mounting it on a sled. And then — all at once one man preparing to cross the bay with a mighty wind behind him, asked himself why he should haul the boat at all. In that moment the scooter was born.

— J. W. Muller.

By permission of the *Outing Magazine.*

BUILDING A SCOOTER

ANYBODY can build a scooter if he can build anything at all. Some of the best on the Great South Bay to-day were built by house-carpenters. One of the prize winners in the races of 1904 was built by a stone-mason. The boat that came in third in the race of the year before was built by a boy of eighteen, who had not seen or heard of a scooter before that year. Their cost may range from seventy-five to a hundred dollars.

The typical scooter is from fourteen to fifteen feet long, with a beam of four to five feet. It is well decked all around, particularly forward, so that the open space forms a cockpit only five or five and a half feet long and two feet to two and a half wide. Around the cockpit runs a powerful combing, built to withstand rough knocks and rising to at least three inches above deck. The entire deck has a gentle turtle-back curve, both fore and aft and across. This curve of the deck is almost duplicated by the bottom of the scooter, thus making a very slight modification of a flat bottom.

Now come the runners — really the only thing that makes the scooter different from any other kind of boat. They are made of brass or steel. Each has its votaries. The men with brass runners can file them true and sharp whenever they need it, especially before a race, without wasting

more than a few minutes. There are conditions where steel runners hold the ice better, and again at times the softer brass runners are a decided advantage. On a fourteen-foot boat the runners will be ten feet long, slightly rocker-shaped, one inch wide and from one and a half to one and three-quarters inches high, being so set and ground as to bevel inwards. They are set about twenty inches apart. It is in the shape, set, and location of the runners that further evolution and perfection of the scooter as a racing machine probably will come.

The mast, which is set well aft, is from nine to ten feet long. The sails may be rigged in any way customary for small boats. The handiest are the regulation boom and gaff and sprit rigs for mainsails, while it is well to have a small boom for the foot of the jib because its proper manipulation and set are so important for the handling of the boat. The bowsprit is large and heavy, and projects from two and one-half to three feet beyond the hull. It is made removable, so that larger or smaller sticks can be substituted according to the weather.

The sail spread of the scooter differs from that of common craft in that the canvas has its greatest extent laterally instead of in height. The scooter wants as much sail as possible astern and in the bow, because it is the canvas alone that steers her. Therefore, a scooter with a nine-foot mast may carry a seven or eight foot gaff and a boom extending fifteen feet and more, although fourteen feet is the usual length for a nine and a half foot mast. The leach of such a sail will be fourteen feet or a little more. The foot of the jib will be at least seven feet, and the leach about the same.

Photograph by American Press Association, New York

THE FLEET OF SCOOTERS ON GREAT SOUTH BAY

Most of the boats are built of pine with oak decks. They must be strong, to withstand the extremely violent wrenches and bumps due to the rough work in the broken ice. The equipment consists of a pair of oars and a pike-pole with sharpened points. The latter is as vital to scootering as an anchor is to a yacht. It offers the only method by which the scooterer can work his way through bad mush ice if the wind is not strong enough to force him over or through it. It is needed, also, to bring the scooter around in extra heavy weather, in case the steering power of the jib should not be sufficient to do it quickly, or the sailor lose control of his craft temporarily; a contingency that is likely to happen with bewildering suddenness in the case of a two-hundred-pound craft with a forty-mile wind behind projecting it over ice as smooth as glass.

It is wonderful how well the jib steers the scooter, however. There being no tiller to demand the care of the sailor, he can handle his jib and mainsail alone and thus make them work in perfect harmony. Let go the jib-sheet and haul taut the main, and the little boat will come around as sweetly as any deep-finned yacht minds her strong helm. She will reach and beat into the eye of the wind, and her runners will not make more leeway than most centre-boards. But if she is to come up in the wind in a particular hurry, the steersman steps swiftly toward the bow so that his weight makes the bearing fall on the keel forward, and the lightened stern comes right around. Thus by a nice adjustment of weight and a close manipulation of sails, the scooter can be made to turn in her own length — spin around like a top. Practically, the man who can sail any small boat really well can sail a scooter. There are lots

of "wrinkles"; but there is only one radically new thing to learn, and that is a queer one.

The scooter's poorest point of sailing is running free before the wind. Indeed, to be precise, the scooter cannot sail at all before the wind. The moment the mainsail blankets the jib in a following wind, the steering power is totally gone. The only way to sail a scooter before the wind is to beat down it. You've got to tack before the wind with a scooter just as you have to tack into one.

One or two make her crew. She can carry three, but it is better to have less. When she darts over smooth ice, the men perch on the combing aft to windward, as they do on cat-boats. When she nears rubble or hummocks, or prepares to dive into mush or water, all hands stand up, to relieve her of dead weight. To enter open water, she is driven straight at it. That is the time the hand at the "helm" must know what to do with that jib. Should she take it sideways, over she'll go. She must hit it true and be eased as much as may be by cunning play with the mainsail. Once over the first wild careen of her plunge, which is almost identical with the gliding plunge of a "shoot-the-chutes" boat, she skims the water as neatly as she skims the ice. When approaching solid ice again, she must be headed straight into it. Her flaring bow goes up its edge, and if she has arrived with speed, she has slid up on it and is off again on her runners before you know it. If the wind is too light to drive her forcefully enough, she may have to be helped with the pike-pole, or with another and unique implement specially devised, which looks as much like a hoe as anything.

For a number of years it was a queer thing about the

scooter that a few miles east or west of Great South Bay the craft was hardly known, even by reputation. Yet for two years certainly the ice in front of Patchogue had been like a picnic ground; every variety of craft cruised on its surface, when a Jamaica Bay oysterman, to whom something was said about scooters, listened with quizzical wrinkle around his eyes. "Scooters, eh!" said he, spitting with loving care at a piece of driftwood. "Scooters! And they jump off the ice into the water, do they? Well, well! What a lot of things there be on land and sea that a feller never would hear of at all if he didn't associate with any except them that tells the honest truth."

— J. W. Muller.

By permission of the *Outing Magazine*.

SKATING

THE RUDIMENTS OF SKATING

As when taking up any sport the first thing to consider is the equipment. For men the most graceful costume by far is either the Austrian or Swedish, consisting of close-fitting breeches or black woollen tights meeting a high boot below the knee or continued to the ankle and covered by the top of the skating-shoe; in either case the coat is short and often a sweater is worn instead. The requisite for women is a moderately short walking-skirt, reaching to within four or five inches of the ice. Buttoned and low shoes are out of the question. The modern skating-shoe has straps attached to give additional support in case of weak ankles, and laces well down to the toe, which allows a more perfect adjustment. The heel should not be too high, an inch or less. Tan leather is cleaner, and some skating-shoes are made with a waterproof sole which gives greater warmth and dryness. It is wisest to have a special skating-shoe with the skate permanently attached; the most suitable adjustable skate is the one that has the so-called heel button, as it gives the securest fastening at the heel and is easily detached. The screw toe clamp is preferable to all others. The extreme length of the skate should not be greater than the whole length of the shoe, except in the case of racing skates. The curve of

the blade best adapted for all-round work on the ice is that known as a seven-foot radius. For competitions in figure skating some champions prefer as radius a true curve of five feet, width of blade a bare quarter of an inch, tapering slightly at the heel and toe, and with a height at the heel plate slightly greater than at the toe plate. For speed skating the blade may be as much as seventeen inches long and as thin as one-sixteenth of an inch, supported by being set into a tube of steel; an expert speed skater will ride upon such a skate for nineteen or twenty feet at a single stroke.

Almost all skating movements are done forward and backward on either the outside or inside edge of the skate blade, obtained by tipping the skate, foot, and body together slightly outward or inward.

In beginning on the ice, the way to avoid a fall by slipping is to stand on both inner edges, then, if the skates slip forward, bring the toes together, which will block the slide, or the heels together if the slipping is backward.

From the standing position to move forward, keep the left foot, which is the first to carry the whole weight, pointed straight ahead. A common fault is making the angle between each stroke and the line of direction which the skater is following too wide. The momentum is obtained by a little push from the inner edge of the right skate which is about to leave the ice, and at the same time a gradual swinging forward of the left shoulder in the same direction as the left foot, keeping constantly in mind that the knee of the now employed foot (left) should be slightly bent, as it helps to control the balance which is directed in the main by the unemployed foot. This bending the

knee, called "cushioning the stroke," is most important in skating, because it acts like the spring upon a carriage, taking up the vibration and so preventing a jar; it also relieves the strain on the ankle. In this plain forward stroke the skate is nearly vertical; if tipped at all sideways, it bears on the inner rather than the outer edge. While moving forward on the left skate, gradually draw the right foot up and forward in line to the position first held by the left, pointing the toe straight forward. Now place the whole weight on the right skate, push off with the left and swing the right shoulder forward, thus keeping up the momentum and cushioning the new stroke with the right knee bent, while the left foot, now become the unemployed, preserves the balance.

Never stiffen; it is fatal to graceful skating, and usually results in a fall, because it prevents the natural adjustments of the body from maintaining the balance. In swinging the shoulders forward avoid bending at the hips.

This is the simplest form of forward skating and should be practised very slowly at first with frequent rests. The mark the skate leaves on the ice shows each stroke as a very small part of the circumference of a large circle. It also shows that the greatest forward progress in each stroke is gained when the stroke is most nearly parallel with the desired direction.

PLAIN FORWARD STROKE

The next step after mastering the plain forward stroke is the "outer edge-roll" forward, which differs from the first movement inasmuch as the small segment of a large circle is increased to a full half-circle of less diameter, supporting the weight while travelling on the outer edge

of the skate. Swing the shoulder of the employed side well out sidewise in the direction of the employed foot, at the same time bend the knee of the employed leg with a dipping motion to cushion the strike, and start the momentum forward, describing a full half-circle of moderate size. The unemployed foot is carried straight and always in the rear of the employed foot, the toe being well turned out. Now gradually swing the unemployed foot forward, keeping the skate just clear of the ice, being careful not to let it swing past the employed foot, until the weight is about to be placed upon it; then the heels are almost touching. Now shift the full weight to the unemployed foot, and so alternate the motions, describing a half-circle as nearly perfect as possible. With each swing, of course, the shoulders change as the feet alternate. The correct position of the arms is hanging straight down by the sides in any easy way, or the hands may be placed in a muff. Do not watch the feet, keep the eyes looking well ahead to avoid any obstacles that may be in the way, such as sticks or rough ice.

Outer Edge-roll Forward

Another skating movement is the "inner edge-roll" forward. In starting, place the employed foot (left) on the ice with the skate on the inner edge. Most of the weight should be carried on the heel of the skate blade, as it cuts the ice more easily while moving. The shoulder of the employed side is swung out in the direction followed by the employed foot. Push off with the unemployed foot (right), and while moving, draw it up in line with the employed foot, heels touching, and carry it there till the

Photograph by Underwood & Underwood, New York

SKATING IN CENTRAL PARK, NEW YORK

finish of the stroke. Then shift the whole weight onto the right foot, making it now employed, and at the same time push off with the left skate. This inner edge movement is continued over the ice, and the mark the skates leave is called the "hooked bill or chain." These movements are very important for every skater to learn, as almost all skating figures call for one edge as much as the other.

Hooked Bill or Chain

Now that the skater has mastered both edge-rolls forward, one must accomplish the same backward to be considered a good skater.

Before trying to strike out backward I should advise practice in turning around first to the right and then to the left on the flat of the skates. It is also a good practice in learning to stop one's self while skating, which is quite essential. For example, you are skating over the ice quite rapidly, and suddenly you wish to stop for some obstacle that happens in your way; just place both skates down on the ice and rock out quickly to the outer edge of one skate, the other will turn to the inner; at the same time turn the whole body, and hold the skates on the edges — and a full stop is instant. It is caused by the turn of the whole body, and the cutting in of the skate blades sideways into the ice.

After you are able to turn around in both directions and want to start skating backward, I strongly advise you to relax your knees as much as possible; for if you should happen to fall, it would then be forward instead of backward, which by all means would be better for the dignity of the skater!

Place one heel (left) back in an outward direction, push

off with the unemployed (right) inner edge, swinging the shoulder outward and backward with the skate in the same direction. After some distance has been covered, enough to call a stroke, shift the whole weight to the right foot (making it now employed), swing the shoulder out and push off with the left unemployed inner edge making another stroke, and so on, alternating the balance with swing and executing the simplest form of backward skating. A great help in all backward skating is to get as much propelling power from the push-off of the unemployed foot as possible, for most beginners do not swing the shoulders out enough when skating backward.

After one can skate the simple backward stroke comes the outer edge-roll backward. Start by placing the employed foot, heel turned out a little on the outer edge of the skate. Bend the knee, swing the shoulder out in the direction of skating backward. The unemployed foot is used in pushing off. After the first stroke the weight is shifted to the unemployed foot, and the shoulders are now swung out in that direction and so on, describing as in forward skating a half-circle at every stroke. The swinging out of the shoulder in the direction of the skate not only adds to the grace of the movement, but helps to hold the skate on the edge while travelling.

One important point to remember when skating backward is to watch where you are going. This to the average beginner sounds impossible, but it is not. For example, when moving back on the outer edge on the employed foot, gradually turn the head around and look over the unemployed shoulder, and you will be able to see just where you are skating quite easily.

After this outer edge backward movement comes the "inner edge-roll" backward. In starting, place the employed foot on the inner edge of the skate. The knee being slightly bent, swing outward with the shoulders. The unemployed foot is used for pushing, and when it leaves the ice, it is brought up so that the toes of the shoes touch. At the finish of the first stroke the unemployed foot becomes employed, and the balance is now changed in that direction by dropping the full weight to the employed foot. To hold the skate firmly on this edge, carry most of the weight on the heel of the blade as in skating on the inner edge forward, as it prevents one from turning around in a small loop. The skate mark left on the ice is the same as that left after executing the inner edge-roll forward, "hooked bill."

And now, as one writer says, "When the wistful learner has mastered plain skating on the flat of the skate, the outside edge forward, the outside edge backward, the inside edge forward and the inside edge backward, he is lord of the 360 figure movements that form the art of skating." — WILLIAM T. RICHARDSON.

SKATING IN 1180

"WHEN the great fenne or moore (which watereth the walls of the citie on the North side) is frozen many young men play on the yce . . . some striding as wide as they may doe slide swiftlie; some tye bones to their feete and under their heeles, and shoving themselves with a little picked staffe do slide as swiftlie as a birde flyeth in the aire or an arrow out of a cross-bowe."

— FITZ STEPHEN'S "Description of London."

MR. WINKLE ON THE ICE

"WELL, Sam," said Mr. Pickwick, as that favored servitor entered his bed-chamber with his warm water on the morning of Christmas Day, "Still frosty?"

"Water in the wash-hand basin 's a mask o' ice, Sir," responded Sam.

"Severe weather, Sam," observed Mr. Pickwick.

"Fine time for them as is well wropped up, as the Polar Bear said to himself, ven he was practising his skaiting," replied Mr. Weller.

"I shall be down in a quarter of an hour, Sam," said Mr. Pickwick, untying his nightcap. . . .

"Now," said Wardle, after a substantial lunch, with the agreeable items of strong beer and cherry-brandy, had been done ample justice to; "what say you to an hour on the ice? We shall have plenty of time."

"Capital!" said Mr. Benjamin Allen.

"Prime!" ejaculated Mr. Bob Sawyer.

"You skait, of course, Winkle?" said Wardle.

"Ye — yes; oh yes;" replied Mr. Winkle. "I — I — am rather out of practice."

"Oh, do skait, Mr. Winkle," said Arabella. "I like to see it so much."

"Oh, it is so graceful," said another young lady.

A third young lady said it was elegant, and a fourth expressed her opinion that it was "swan-like."

"I should be very happy, I 'm sure," said Mr. Winkle, reddening; "but I have no skaits."

This objection was at once overruled. Trundle had got a couple of pair, and the fat boy announced that there were half-a-dozen more, downstairs, whereat Mr. Winkle expressed exquisite delight, and looked exquisitely uncomfortable.

Old Wardle led the way to a pretty large sheet of ice; and the fat boy and Mr. Weller, having shovelled and swept away the snow which had fallen on it during the night, Mr. Bob Sawyer adjusted the skaits with a dexterity which to Mr. Winkle was perfectly marvellous, and described circles with his left leg, and cut figures of eight; and inscribed upon the ice, without once stopping for breath, a great many other pleasant and astonishing devices, to the excessive satisfaction of Mr. Pickwick, Mr. Tupman, and the ladies; which reached a pitch of positive enthusiasm, when old Wardle and Benjamin Allen, assisted by the aforesaid Bob Sawyer, performed some mystic evolutions, which they called a reel.

At this time, Mr. Winkle, with his face and hands blue with the cold, had been forcing a gimlet into the soles of his feet, and putting his skaits on, with the points behind, and getting the straps into a very complicated and entangled state, with the assistance of Mr. Snodgrass, who knew rather less about skaits than a Hindoo. At length, however, with the assistance of Mr. Weller, the unfortunate skaits were firmly screwed and buckled on, and Mr. Winkle was raised to his feet.

"Now then, Sir," said Sam, in an encouraging tone; "off vith you, and show 'em how to do it."

"Stop, Sam, stop," said Mr. Winkle, trembling violently and clutching hold of Sam's arms with the grasp of a drowning man. "How slippery it is, Sam!"

"Not an uncommon thing upon ice, Sir," replied Mr. Weller. "Hold up, Sir."

This last observation of Mr. Weller's bore reference to a demonstration Mr. Winkle made at the instant, of a frantic desire to throw his feet in the air, and dash the back of his head on the ice.

"These — these — are very awkward skaits; ain't they, Sam?" inquired Mr. Winkle, staggering.

"I 'm afeerd there 's an orkard gen'lm'n in 'em, Sir," replied Sam.

"Now, Winkle," cried Mr. Pickwick, quite unconscious that there was anything the matter. "Come; the ladies are all anxiety."

"Yes, yes," replied Mr. Winkle, with a ghastly smile. "I 'm coming."

"Just a goin' to begin," said Sam, endeavoring to disengage himself. "Now, Sir, start off."

"Stop an instant, Sam," gasped Mr. Winkle, clinging most affectionately to Mr. Weller. "I find I 've got a couple of coats at home, that I don't want, Sam. You may have them, Sam."

"Thank'ee, Sir," replied Mr. Weller.

"Never mind touching your hat, Sam," said Mr. Winkle, hastily. "You needn't take your hand away to do that. I meant to have given you five shillings this morning for a Christmas-box, Sam. I 'll give it to you this afternoon, Sam."

"You 're wery good, Sir," replied Mr. Weller.

"Just hold me at first, Sam; will you?" said Mr. Winkle. "There — that 's right. I shall soon get in the way of it, Sam. Not too fast, Sam; not too fast."

Mr. Winkle, stooping forward with his body half doubled up, was being assisted over the ice by Mr. Weller, in a very singular and un-swan-like manner, when Mr. Pickwick most innocently shouted from the opposite bank —

"Sam!"

"Sir?" said Mr. Weller.

"Here. I want you."

"Let go, Sir," said Sam. "Don't you hear the governor a callin'? Let go, Sir."

With a violent effort, Mr. Weller disengaged himself from the grasp of the agonized Pickwickian; and, in so doing, administered a considerable impetus to the unhappy Mr. Winkle. With an accuracy which no degree of dexterity or practice could have insured, that unfortunate gentleman bore swiftly down into the centre of the reel, at the very moment when Mr. Bob Sawyer was performing a flourish of unparalleled beauty. Mr. Winkle struck wildly against him, and with a loud crash they both fell heavily down. Mr. Pickwick ran to the spot. Bob Sawyer had risen to his feet, but Mr. Winkle was far too wise to do anything of the kind in skaits. He was seated on the ice, making spasmodic efforts to smile; but anguish was depicted on every lineament of his countenance.

"Are you hurt?" inquired Mr. Benjamin Allen, with great anxiety.

"Not much," said Mr. Winkle, rubbing his back very hard.

"I wish you 'd let me bleed you," said Mr. Benjamin with great eagerness.

"No, thank you," replied Mr. Winkle, hurriedly.

"I really think you had better," said Allen.

"Thank you," replied Mr. Winkle; "I 'd rather not."

"What do you think, Mr. Pickwick?" inquired Bob Sawyer.

Mr. Pickwick was excited and indignant. He beckoned to Mr. Weller, and said in a stern voice, "Take his skaits off."

"No; but really I had scarcely begun," remonstrated Mr. Winkle.

"Take his skaits off," repeated Mr. Pickwick, firmly.

The command was not to be resisted. Mr. Winkle allowed Sam to obey it, in silence.

"Lift him up," said Mr. Pickwick. Sam assisted him to rise.

Mr. Pickwick retired a few paces apart from the by-standers; and, beckoning his friend to approach, fixed a searching look upon him, and uttered in a low, but distinct and emphatic tone, these remarkable words: —

"You 're a humbug, Sir."

"A what!" said Mr. Winkle, starting.

"A humbug, Sir. I will speak plainer, if you wish it. An impostor, Sir."

With these words, Mr. Pickwick turned slowly on his heel, and rejoined his friends.

— Charles Dickens.

From *The Pickwick Papers.*

SKATING FOR THE LITTLE BEAR AT GRINDELWALD

EVERY Tuesday morning at about eleven the crowd of skaters gathers about the centre of the rink in the form of a great horseshoe, and looks expectant. Presently from the midst of it a man glides sedately into the open space and begins to do the outside edge in a thoroughly businesslike manner. Somehow you feel certain that the state of his inner spirit is not of a piece with his outward calm; and when at a word from somebody near the centre of the crowd he changes to the inside edge, you look towards the source of the command, and discover at the same time the cause of his suppressed agitation. Standing slightly aloof from the rest of the onlookers are three stern-visaged persons watching with eagle eyes the performance of the solitary skater, and gathering themselves together to pounce upon the slightest flaw. One of them is armed with pencil and paper, presumably for the purpose of recording every capture of a wavering curve or a rasping turn. They are really amiable enough people, these judges, on other days of the week, and as likely as not the subject of their present scrutiny is an intimate friend of theirs; but let him not now presume upon their friendship, which is sunk so deep under the still waters of justice that it may not rise again to the surface till the following morning. When he has negotiated to the best of his ability all four edges and some

simple 3's and 8's, this first skater is ordered out of the arena and is succeeded by a second, possibly some tender slip of womankind, but stout-hearted, who is put through the same ordeal. Yet these trials are elective, and the object of them is this. After all candidates of the day have been on the ice, the judges inform each one among them who has fulfilled the traditional requirements of the test that he may go to one of the village shops and buy for the sum of three francs a brooch, with a tiny silver bear dangling from it, which may be worn for all time to come, and people will say "He has his Little Bear," and treat him with considerable respect.

It seems an easy test, because so little is required; but it is really difficult, because the standard of execution is so high. Of course it is in the English style of skating; even the Oberlander skate in the English style, for no other is recognized here. One day a celebrated Continental skater came upon the ice with a style of his own invention, distinctly original, and highly ornate. He did some gorgeous figures with remarkable speed, and the old habitues stood breathless to see him come swinging over the rink with an "unemployed" that strayed from orthodoxy with the most charming abandon. It was a bit too dazzling, as he realized himself, and on the second day he wisely went, leaving behind him an unwholesome exotic fragrance which the faithful at once proceeded to chase away with all their virtuous might.

Whenever anybody is courageous enough to ask for it, the Big Bear test is held. This requires proficiency in all the essentials of English figure-skating, and has been passed by but few.

—Daniel P. Rhodes.

FIGURE SKATING

While there is in Europe a strong distinction between two schools of figure skating, the "English" and the "Continental," in America the tendency has been to take a middle course between the two styles. According to Mr. Rhodes, "the English conception of skating, like the English conception of many other difficult undertakings, may be embodied in two words — nothing easier. Long sweeping curves, smooth complacent turns pianissimo, body erect in a statuesque repose, rebellious arms stoically repressed to the minimum of insurrection, these are the requirements of the English school." The broad distinction is that the English style requires that the skater keep his employed leg absolutely straight, the knee unbent; the whole person a rigid line vertically above the bearing edge of the skate. Turns are made by the action of the muscles of the ankle on which the weight is resting without assistance from the unemployed leg. Continental skaters insist on the bending of the employed knee and make their turns by a free use of the unemployed leg, with the employed foot serving as scarcely more than a pivot.

A part of this wide difference is due to a difference in the skates used; the radius of an English skate is usually from six to seven feet, of a Continental skate, five feet to five and a half; the result is greater ease of balance on

the English skate, the need of freer use of arm and leg to maintain equilibrium on a Continental skate. On the English skate large curves are more easily described than small, and skaters in combination execute figures of intricate evolution. The ordinary number for a combined figure is four, but may be sixteen or twenty. Four men take positions facing a common centre, one pair facing north and south, the other east and west; one as leader calls off the figure to be skated, his partner and he from opposite sides start on the same foot, approach each other, stroke for stroke, meet at the exact centre, wheel and pass in perfect time, followed closely by the second pair who skate exactly the same figures but on a course at right angles to that traced by the first pair of skaters. At one moment all four will seem to be racing around a circle yards away from the centre, but there is no effort of one to overtake another, each is a quarter of the circumference away from the next, and sooner or later the signal sends them all wheeling toward the centre until collision seems inevitable, but is always avoided by a turn at the critical time — that is, when the skaters are expert. To the Continental skater on the other hand belongs the field of individual small-figure skating; his aim is grace and swift motion in compact symmetrical figures, in the making of which the whole body contributes, bending and swaying in graceful emphasis of the beautiful curves described.

The American skater, however, is quite likely to wear a skate of the English radius, but adopt to some extent the Continental practice of bending the knee. He may not copy either the swinging dash of the Swede, the nearest of the Continentals to the smooth dignity of the English,

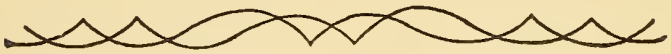
nor yet the brilliant, rapid, almost theatrical French or Austrian figure skating, but his points of good style, as the best skaters have set them down, are not essentially different from those required by the rules of the International Skating Union.

The head must be carried erect with the eyes turned to the ice at his feet no more than is absolutely necessary; the arms should hang naturally and not stiffly to the sides; the body should not be bent either forward or sideways from the hips, and the shoulders should be held well back so that the lungs are expanded; the employed leg should be slightly bent at the knee to give freedom of motion; the unemployed should swing with freedom enough to secure perfect balance and grace, but without extravagant abandon. The ideal of form is: perfect freedom, yet "nothing too much."

Assuming that the skater has mastered the five rudiments and can skate on the flat edge, or backward or forward on either edge, he may advance to figure skating by way of the "cross-roll," which differs from the outer edge-roll only in that as the unemployed foot leaves the ice it is swung across the other and strikes the ice on its outside edge as the weight of the body falls upon it. A point to remember is that in skating the cross-roll forward the toe should point in slightly as the skate strikes the ice; so in going backward, the toe turns out and the heel in.

A simple figure developed from this cross-roll is the figure eight done on two feet; it is marked on the ice by doing one complete circle on one foot on the outer edge and at the finish crossing the foot over and making another outer edge circle on that foot.

Another simple figure done on two feet is the "grapevine," made by doing a "serpentine" with each foot, one slightly in advance of the other; and a serpentine is merely a repetition of the "figure three," first on one foot and then on the other. This figure three involves a new movement, known as the "change of edge-roll," in which at the middle point of a stroke the balance of the body is shifted so that from an outer edge stroke it becomes an inner edge stroke, making a graceful curve, the half of a figure eight. But if the position of the body is shifted with the change of edge, the mark left is a figure three, of which the first half, for example, may be skated on the outer edge forward and the remainder on the inner edge backward, but all on the one foot in the one stroke. It should be noted that while the skater changes his *position*, facing alternately front and back and shifts from one foot to the other, continuing the figure three into a serpentine, the *direction* of his progress remains the same. This movement, known as the three-turn, is especially important in waltzing on ice.



THE GRAPEVINE

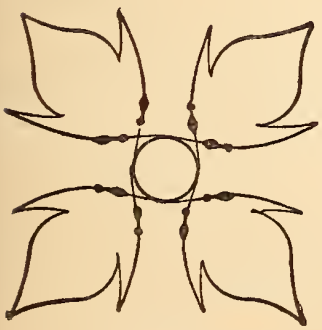
A FIGURE THREE

FIGURE THREE, FORWARD AND BACKWARD

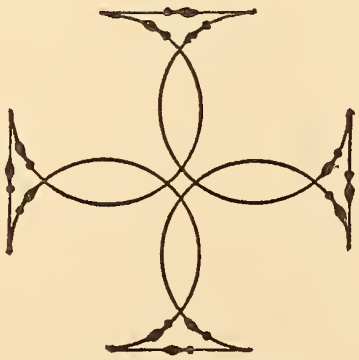
Theoretically, the various figures which are described on one foot are important, because in the beginning nearly every skater will find that he has unequal command of his two feet, and these figures are supposed to be the exercises by which the weaker is developed to the degree of the other. But too often the desire to see or show a well-executed design on the ice leads the novice

to practice the figure on the foot with which he can do the more even curves, with the result that the vice of having "a pet foot" is more than ever confirmed. Of such one-foot figures the "rocking turns" are frequent elements; they are curves of an acute angle made by changing from one edge forward to the same edge backward; according to whether it is made toward the right or the left the turn is a "rocker" or a "counter rocker." The turn made by skating the change of edge-roll first forward and then backward, or *vice versa*, is called a "bracket turn." These are the more important units, all of them based on the fundamental rolls, which are combined in many various ways in intricate fancy figure skating. The "clover-leaf" is a figure three with an additional turn thus: outer forward to inner backward, to outer forward again; or by beginning on the inner edge backward to outer forward to inner backward again. The "cross-cut" or "anvil" is carried out entirely on the outer edge of the skate, by making a small curve forward on the outer edge, then a straight line back on the outer, and forward in a curve on the outer edge still. Four of these anvils made in succession, equally apart from a common centre, form a "Maltese

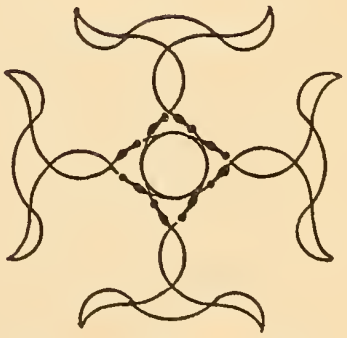
The Anvil



Tulip Star



Maltese Cross



Chicken-bill Star

cross." By a study of the units described it can be seen how they enter into such designs as the "tulip star" or the "chicken-bill" star.

Hand-in-hand skating may be begun with the simple movement which Mr. Richardson thus describes: "Start by facing your partner, and each one execute a circle forward on the right foot, clasping hands while on the last half. Then as you both complete a full circle on the outer edge disengage hands, and each execute a circle separately on the outside of the centre one, coming back to the first movement, clasping hands again, and continue skating the inside circle either once around or twice together. After these three circles have been practised to good purpose, start on the inner circle, clasping hands as before, but holding until two complete revolutions have been made. Disengage hands halfway between the outside circles, and on the unmarked ice make an independent circle each. Then follow back to the centre circle and repeat at will the entire figure of five circles, sometimes called the 'combination eights.'"

The most fascinating movement on skates is the waltz step skated to music; or, as Continental skaters call it, "valsing on the ice." The movement is really simple, once one has learned to make the gliding change from one foot to the other at the turns. Begin with the left foot on the outside edge forward, as if you intended to make a figure three, but at the time you change direction let the right foot take the stroke on the outer edge backward, then the left outer edge forward again. As this repeated would keep the skaters moving in a not very large circle it is usual to substitute at regular intervals a change of edge-

roll on one foot for one of these figure three turns on both feet, thus beginning another large circle in the opposite direction. Done singly the movement, to a good skater, should be easy; it is done by a pair facing each other, moving by strokes of exactly the same length. Naturally from their position, one skates the forward curve as the other skates the backward, and the change from one to the other must be made in absolutely perfect time. But a fuller description of it may better be left to an expert. —J. C. D.

VALSING ON THE ICE

A RECENT, and assuredly the most popular, modern development of the International style of figure-skating is "valsing on the ice"; that is, the execution by a lady and gentleman, in the ordinary valsing position, of gliding steps to valse music.

Declared by some devotees of the art to be as far in advance of valsing in a ball-room as riding and bicycling are to walking, and by others to be "like flying" and "the most delightful form of motion ever devised by man," the ice-valse has attained, since its first introduction at the London Rinks in 1895, an extraordinary vogue, almost amounting to a furore. Season after season it has gone on widening the circle of its votaries and increasing their ardor. In spite of stern discouragement from the "ramrod" school, the valse is spreading wherever ice lies open to the steel-shod foot of man or woman. Even on those once jealously guarded preserves — the rinks of Anglo-Swiss mountain resorts — the triumphant "three-step" draws all within the sweep of its seductive vortex. . . .

Who was the first inventor of the now famous skating-valse is not known. Attempts to valse on ice were made, we believe, as long ago as the late seventies and early eighties at Hampton Court, — then, and indeed a century or so before that time, one of the chief centres of figure-

skating in the south of England, and one, moreover, where the traditions of the old English natural and free style — recently developed into the International — have always been preserved. But no satisfactory figure or movement suitable for a valsing pair appears to have been evolved.

The date and place of origin, however, of the present ice-valse is known for certain; namely, the "Palais de Glâce" in the Champs Élysées, in 1894. Thence it was brought, in the following year, by the instructors to the rinks in London; and so strong was the hold it at once took of the modern English skating world that abroad — in Berlin, St. Petersburg, Vienna, Brussels, Stockholm, St. Moritz, Davos, etc. — it is now generally known as "the English valse."

Valsing on ice, simple as it may seem to the onlooker, and delightful as it certainly is, even for the indifferent performer, is by no means an easy accomplishment to excel in, even for a good figure-skater. To valse fairly well is not, perhaps, very difficult; but to valse very well indeed — to be, in fact, in the very first rank — has so far been attained only by a very few skaters, and those chiefly ladies who are among the leading International figure-skaters of the world.

The apparent similarity of valsing with skates on ice to valsing in shoes on a floor has led many to imagine that they may easily acquire the art, if only they can learn to skate a little. The resemblance between the two, however, is only superficial, consisting merely in the position of the partners, their revolutions round each other, and the execution of the steps or figure to valse music. On the other hand, the ball-room steps, the length of which are meas-

ured in inches, are usually nothing much more than quick, rather jerky slides, while the essentials of the skating-valse steps — to be measured in feet, or rather yards — are long, evenly sustained glides, with smooth, circling movements. Not, in fact, until the would-be valser on ice has entirely discarded all floor-valsing notions, especially anything like deux-temps, is there any chance for him or her to make substantial progress.

Before describing the popular "three-step" or "English" valse, it should be observed that there are several other steps, such as the "Grape-vine" valse, the "Jackson-Haines" valse, the "Swedish" valse, etc., which are sometimes skated by a pair together to valse music. All these, however, may be dismissed from our present discussion. For, whatever may be their attraction — and some of them are unquestionably very charming — they are all composed of comparatively slow and cramped steps; and are all, to a certain extent, "two-footed" movements, and are not comparable to the "three-step" in speed, swing, or abandon; nor in the scope it offers for the rhythmic and sinuous grace which most enchants us in the valsing of the best lady skaters at Prince's.

Passing now to analyze the figure: in its simplest form it consists of nothing more than an ordinary forward outside edge on one foot — say the left — followed by a turn on to the backward edge of the same foot, and then a passing — with a gliding step, not a "drop" — to the backward outside edge on the other foot; that is, in the case supposed, the right. The figure is thus expressed in skating symbols: Lfo, tbi, Rbo. In practice the back inside edge is often held by the first foot for a yard or two,

especially by efficient valsers, before they glide fully on to the outside edge on the other foot. By gradually turning the body, while tracing this last stroke, the skater will be in such a position as to be able to pass straight on to another forward outside edge on the original foot. Another turn is made thereon to the inside and the figure repeated, it may be, several times. The rotation, in the case supposed, will be what is termed "direct" or "positive," the opposite to that of the hands of a watch.

Dealing next with the combined execution of the movement or figure by a pair of valsers: it is obvious, from their relative positions, that when the man is moving on forward curves, his partner will be moving on backward ones, on opposite but reversed feet; when he is moving on backward curves, she will be on forward ones; and further, when he is cutting the three-turn, she will be passing from her backward outside edge on one foot, to her forward outside edge on her other foot; and *vice versa.* It is the absolutely simultaneous execution of these movements by the two partners that constitutes the whole essential art of a pair "going together."

Now, a continued repetition of these steps, in the same direction of rotation, will bring the valsing pair around in a circle, and, from an ice-valser's point of view, not a very large one — probably some forty feet in diameter. In order to avoid this, and escape the monotony of continuously revolving in the same way, doing the same steps (or tracing the same curves) on the same edges, on the same feet, the figure is alternated, the rotation being changed to the reverse or negative (clockwise) direction, and the three-turns cut by the pair on their right feet.

Usually two or three three-turns are done on the left foot — the direct or positive rotation — to one or two on the right — the reverse or negative — when the rotation is changed back again to the direct. In this way the general progression of the valsers will be in the positive direction around the rink. If, on the other hand, two or three three-turns are done on the right foot to one or two on the left, the general progression of the valsers will of course be in the reverse direction; while if an equal number are done alternately on each foot, the general progression would be in a straight direction down the rink, the skaters travelling over a very large serpentine line, as shown in the accompanying diagram.

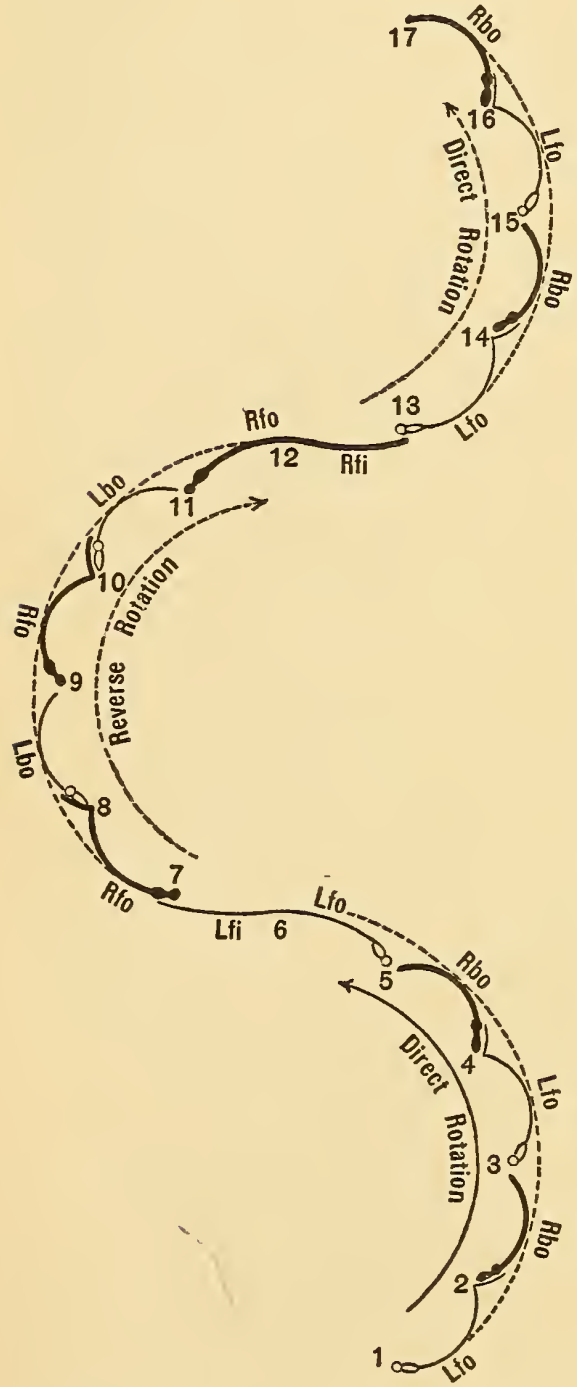


Diagram of two three-turns skated alternately in each direction, showing how the change of rotation is effected in valsing on the ice.

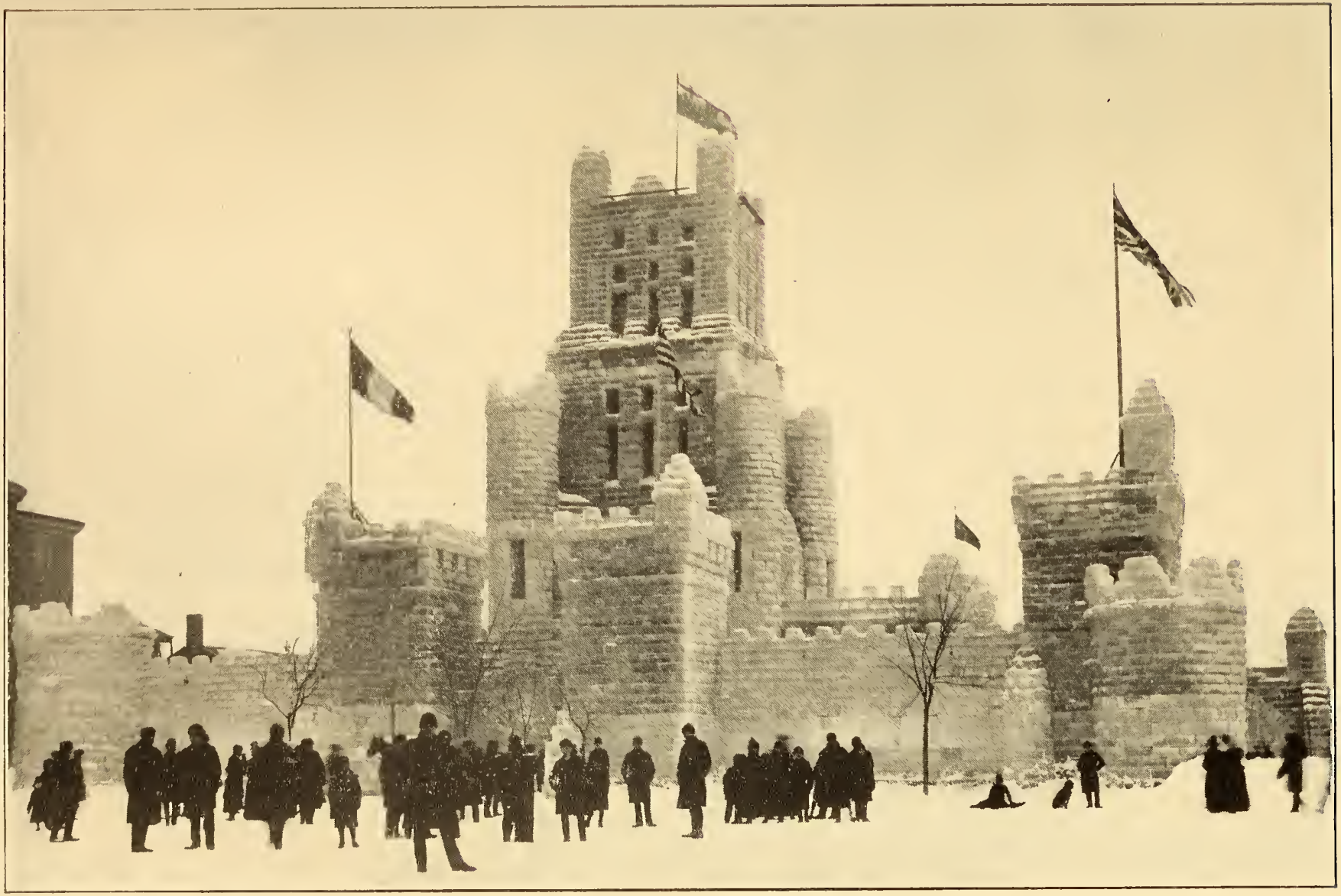
Now as to the change of rotation, on the satisfactory execution of which so much of the grace and charm of the valse-figure depends: how is it to be effected? Observing, to begin with,

that it is usually done while the man, who is leading and steering, is moving on a forward curve, when his partner will, of course, be on a backward one, let us first take the case of a change from a direct to the reverse. In this case the man, instead of cutting a three-turn when on his left forward outside edge, rocks over, after tracing there on a fair-sized curve, to the forward outside edge on his right foot and cuts a three-turn on that foot. At the same moment his partner, instead of passing from her right backward outside edge to a forward outside edge on her left foot, must by some means sway over to the *backward* outside edge of that foot, and from that stroke pass to a forward outside on the right.

Now this combined movement of rotation is, by nineteen out of twenty pairs who valse on the ice, effected by means of a sort of sudden jerk, the lady being forced over by her partner from a curve in one direction to a curve in the reverse direction; whilst he himself crosses one foot over the other in order to obtain the necessary leverage. In so doing he probably lifts up his crossing leg as though he were walking upstairs; distorts both curves as he plants one skate down over the other; and, in the process, misses the beat of the valse music, so that all time and rhythm are usually lost. In fact, he scrabbles over it, instead of skating it; and in the effort the pair tend to move away from each other, and to lose that absolute smoothness and unity of movement which are essential to the proper execution of the valse.

It is only by careful observation of the practice of the half-dozen best lady valsers that we are able to detect the secret of how the changing movement is satisfactorily

accomplished — a movement which is the very crux of the skating-valse, and on which, as we have already said, its main effect and charm depend. It is in this way: the lady, instead of passing straight from the backward outside edge on one foot to the same edge on her other foot, should glide over by a gradual change of edge, from the outside to the inside, on the first foot, tracing thereon an inside curve, often several yards long, before passing from that foot to the backward outside edge on the other. This change of edge will enable her partner — who at the same time changes from his forward outside to a curve on the inside — to skate round her smoothly and easily at the proper angle; and their change of rotation will therefore be effected by an easy, even, floating swing of the body, delightful to behold, and still more delightful to experience. It is true that many expert men valsers, though changing the rotation by means of the change of edge, instead of the jerk, yet assist themselves by the crossing step. But the best of these — especially the instructors — endeavor to do so as smoothly as practicable, and in such a manner as to disguise the device as much as possible, by just slipping one foot over the other in a sort of gliding step. Done in this way, with true curves and on the beats of the music, it is quite a legitimate and satisfactory alternative to the uncrossed step. Indeed, in the vast majority of cases, where the lady does not happen to be in the very first flight of ice-valsers, it is the only possible way for the man to get his partner round. It might seem that if the man uses the crossing step, the lady, not to mar the perfect symmetry of their combined movement, ought herself perhaps to use the back crossing step; this,



AN ICE-PALACE IN MONTREAL

however, is very rarely done. It has been tried, but so far with very indifferent success. In practice it has been found even to interfere with the flow of the movement, and to check the speed — its main advantage seeming to be the imparting of a rather pretty swing or swish to the ladies' skirts.

It will be seen that such a method of changing the rotation has the no small advantage of enabling the pair to catch easily the beats of the time of the valse music for the several steps and turns. This is very important on a crowded rink, where valsers have frequently to shorten, lengthen, or vary their steps, in order to steer clear of other skaters; and where it requires no little skill to pursue an even unperturbed course, preserving throughout the proper time and rhythm of the dance, amid a throng of indifferent performers.

A few hints must now be given as to the means whereby a skater may acquire real proficiency in valsing. First and foremost, of course, comes practice, especially practice in skating the figure alone. This is best done by skating it in the form of an "eight" to a centre, first with one three-turn to each circle, next with two, then with three three-turns, great care being taken to skate the figure symmetrically and to change the rotation easily and evenly at the centre of the "eight"; that is, where the two circles intersect or meet.

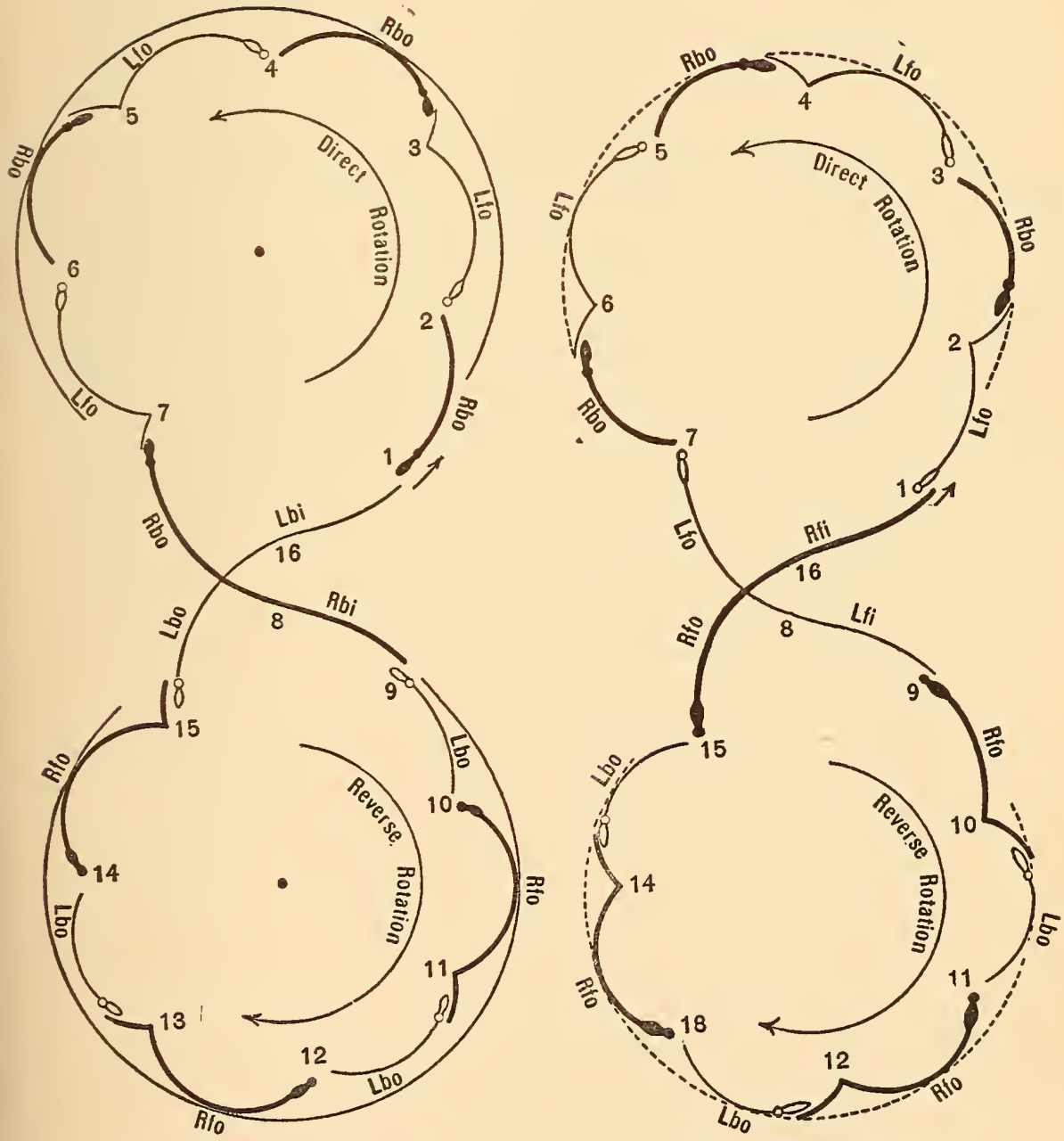
Careful attention must also be given to the tracing of "true" curves, and the clean, smooth cutting of the turns. Only when this can be done with absolute sureness and precision need the practicer think of trying to valse with any one else. It is really useless for a skater to try, as one

often sees beginners trying, to valse with a partner before being able to do the figure alone, sometimes before being able even to cut a simple three-turn. But when the figure can be done fairly well alone, a correct style can best be acquired by constant practice with an expert, round and round an "eight," particular care being paid to its proper execution, in unison one with another, so that every movement shall be exactly together, and the proper, upright, and parallel position maintained by both throughout.[1]

Among other aids to proficiency may be reckoned the candid criticism of onlookers, which should be readily invited, especially of those who understand in what the real essence of good ice-valsing consists. Another aid is for a lady occasionally to valse with another, taking the man's part; whereby she may better appreciate her partner's difficulties, and more easily learn the proper movement and rhythm of the valse.

A change and variety of partners, also, will help to develop in the valser the flexibility, the responsiveness, and the complete harmony, which are absolutely essential to the skating valse. Not that really very good valsers, whose style has been perfected, gain any great advantage by valsing with indifferent performers. On the contrary, the very adaptability to a partner's movement, which is one of the most important elements in good ice-valsing, would be just the very thing which, with a lot of clumsy

[1] In some places where an expert partner is not easily found, two learners will qualify for skating together by practising to the music of a phonograph, each using the same tune, played in the same time, and agreeing beforehand on the diameter of the two circles which will form their practice "eight," unless the available ice is large enough to admit of simultaneous practice on separate "eights" to the same music.



THE LADY'S STEPS THE MAN'S STEPS

VALSING PRACTICE IN THE FORM OF AN "EIGHT"

The thick lines represent the strokes on the right foot, the thin lines those on the left.

partners, might end in taking off the highly tempered edge of a perfect style.

But practice, in any case, is above all the thing absolutely essential, even to those with every natural aptitude and acquired skill, to produce a really first-rate valser, practice constant, continuous, and varied. Few beginners, and still fewer onlookers, have any idea of the hours of training that have gone to the making of the really first-class performers. Like the dancer on the stage, the lady valser on the rink, who would maintain her preëminence, cannot afford to allow her muscles and joints to grow stiff by want of exercise.

— Ernest Law.

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THE POINTS OF VALSING FORM

THE following notes on the points of valsing form are the groundwork of the "analysis of form," whereon rests the system of marks in figure-skating competitions embodied in the rules adopted by Prince's Skating Club and the St. Moritz International Skating Club, and likely to be the most universal basis of judging competitions in valsing on the ice wherever skating is a popular sport. They are the outcome of careful observation and analysis of the form and style of all the best valsers in Europe during the last four or five years; and before being finally settled have been submitted to each of them for comments and criticism. As now systematized, it is hoped that they may prove of assistance, not only to judges and competitors, but also to all those who aspire to share in the highest enjoyment of valsing on ice.

1. *Erect carriage and parallel position.* — Head erect; no stooping, nor hunching up of the shoulders, nor leaning forward; no doubling at the waist nor sideways twisting; but the whole body upright, pliable, flexible, and elastic. "Parallel position" means that each partner should be opposite and square to the other. The perfect and continuous maintenance of this position is difficult, and not often attained, especially during the effecting of the change of rotation from the direct to the reverse, just when the man

passes from the outside edge forward on the left foot, preparatory to cutting the three-turn thereon — which is identical with the moment when the lady rocks from her right outside back edge to her left outside back. At this moment there always seems to be a strong tendency for the partners to "go away" from each other, and the space between them to open out, so that they are slantwise, instead of opposite or parallel to each other. No such tendency shows itself when changing the rotation from the reverse to the direct.

As to the man's holding of his partner, his right arm should hold her firmly round the waist, but quite lightly and easily; while his left, which ought neither to be bowed, nor stretched out stiffly, nor stuck up high above his shoulder, should be carried lightly and freely, rather below the level of his shoulder, his hand not clutching, but just lightly holding his partner's. Her right arm and hand should be held in the same easy way; her left being placed on his shoulder or his arm.

There should be no sudden movement of the shoulders or head; especially no turning of the head to look round before cutting the three-turn.

2. *Accurate curves and smooth turns.* — That is, all curves should be segments of true circles, not irregular curved lines; they should be long and sustained, flowing evenly into each other, not merely short, quick, jerky strokes. They should be skated with firmness and precision, and as a general rule be held for something like a fourth or a third of a circle, both before and after the turn is cut. They should be symmetrical in shape, scale, and size, whether reverse or direct; and travelled over at an even and uniform speed,

which should be preserved throughout all the component parts of the valse figure, though the general pace should vary with the modulations of time in the music. The turns should be "pure swung turns," smoothly cut, without jerk, whisk, or wrench — the revolving of the body continuing evenly while the turn is being cut, and the motion being so smooth and regular, as well before as after the turn, that the precise instant when the blade of the skate passes over from the outside to the inside edge should be scarcely perceptible. The passing from the inside back edge after the turn to the outside back on the other foot should be a smooth, gliding movement, with nothing of a hop or "drop" about it. Nothing is more destructive of all good and graceful valsing than a disregard of this injunction.

3. *Suppleness, pliancy, and flexibility.* — All parts of the body of each valser — neck, shoulders, back, waist, hips, knees, ankles — should move with suppleness and flexibility, but yet in unison with all the movements of the other, so that the joint result should be an elastic bending of the movements of the two.

4. *Grace.* — This element in valsing on ice, as in any other art or exercise, is easier to note as an essential one in a satisfactory execution of the dance, than to analyze or define. Every one recognizes "grace" when they see it, but all find it most difficult to describe. Moreover, grace in movement must always mainly depend on the figure and natural aptitude. But that the figure itself is susceptible of the most extraordinary improvement by skating — more than by any other known exercise — has been proved by very many cases over and over again. . . . But on the other hand, if the carriage and position be correct; if the skating of all the

curves and turns be true; and if the movement of the pair together be easy, flexible, and harmonious, then the resultant effect is certain to be — indeed, must be — graceful.

5. *Striking at the same identical moment.* — This signifies that the lady's outside back curves should be begun at the identical moment that her partner begins his corresponding forward curves, and *vice versa*, the feet of each partner being opposite, and the curves "in line," or nearly so, and in any case always concentric. The man should be careful not to "plunge" when striking; nor to appear to push or drive the lady, but should glide smoothly and quietly, steering her lightly and easily. The lady, on her part, should not "pull"; nor should she lean, still less hang, on her partner; but should move by her own skating, while responding quickly and easily to all his movements. The free leg of the skater should swing in concert with the tracing leg, so as to assist the general movement. It should never be stuck out stiffly behind, nor to the side; but should sway flexibly, and at such a reasonable distance from the other that the foot is carried not far from the ice, the toe always pointing downwards and outwards.

6. *Absolutely simultaneous rotation.* — The pair should revolve round each other in curves as nearly as may be concentric; the man cutting his three-turn as nearly as possible *at the precise moment* at which his partner passes from the outside backward edge on one foot to the outside edge forward on the other — and *vice versa*. The two valsers, in fact, should move without any perceptible effort, almost unconsciously, and without any appearance of steering, like one revolving body. The valser when passing from the outside backward edge on one foot to the forward edge on the

other should do so on a true curve, without any dribbling on a false inside edge, or any slithering on the flat of the blade. When changing from the direct to the reverse, or *vice versa*, the man will be greatly assisted by his partner, if, at the end of her outside back curve, she helps the change of their rotation by putting in a sharp curly change of edge on to the inside. This will enable her to "get back," or be "got back," as the expression is, without jerking, and without being forced over by her partner, and to glide over to the other foot with absolute smoothness and lightness. The man will then not necessarily have to cross his feet, and the result will be that the change of rotation of the pair will be effected by a smooth floating motion without any appearance of effort or strain.

7. *Unity and harmony of movement.* — This point is pretty well implied in the six foregoing ones, and will naturally result if those others are properly observed. One easy crucial test of unity of movement is to note whether the man's left shoulder and the lady's right are always at exactly the same distance from each other; another is to observe whether the heads of the pair are always at the same relative level. This is important if the lady valses with much undulatory movement; for if the man remains too rigidly upright, his partner will appear to be bobbing up and down — to "dip" as it is called — a defect which in that case will be entirely due to him and not to her.

8. *Time to the music.* — Too often disregarded by valsers on ice, this point is one of the most important of all; and its accurate observance is essential to the grace and charm of the dance. Time is kept by striking — that is, starting each curve — and by turning — that is, cutting each

three-turn on an accented note of the valse music. This, however, can only be satisfactorily achieved by marking in this manner every *alternate* beat. The attempt to mark in this manner every accented note is practically hopeless in the skating valse, and can only result in an entire failure to keep time at all, the valse then degenerating into a mere unrhythmical spin. This is owing to all movements on ice being essentially and necessarily long and gliding, and involving an appreciable time to execute. For the same reason, it is very important that the valses selected for valsing on ice should be in slow-measured time, such as are known as the "valses lentes," and that they should be played as slowly, and, as one might say, as "dreamily" and "glidingly" as possible, subject, of course, to the melody of the music not being impaired thereby.

9. *Rhythmic undulatory movement.* — This is a quality occasionally superadded to other elements of the best ice-valsing, but so rare and impalpable as to be very difficult to analyze or describe. Briefly, it may be described as an expression or marking of the cadences and rhythm of the music by a sympathetic motion of the body in unison therewith; for its attainment it is essential that the curves should be true, steady, long-sustained, and sweeping, so that the undulations of the body may be even and gradual, and pass musically one into another.

General observations. — The rule of the International Skating Union that: "Other things being equal, higher marks will be awarded for greater length of sweep and size of curve, which, of course, will involve greater speed over the ice, provided true time to the music be kept" — applies only in so far as the grace and harmony of the general movement

is not marred by any appearance of effort; and subject to all the curves being proportionate in scale, and the speed even and uniform throughout, though it may vary with the varying rhythm of the music.

It must also be understood that the foregoing notes do not at all aim at fettering the individual style and form of the valsers. On the contrary, these are meant to be left entirely to the taste of each skater. So long as the valsers hold themselves correctly and move gracefully together, they are free to use either long curves or short; quick-following turns one after another, or slow-measured alternate rotations, direct and reverse; large "eights," or small, all executed either in double quick or double slow time; the pair varying the size, motion, action, and style of their steps at their will, provided they do so rhythmically to the music.

— Ernest Law.

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A Few Valses Suitable for the Ice

"Ciribiribin"
"C'est Joi"
"Venus on Earth"
"The Merry Widow"
"La France"
"Gold and Silver"
"La Lettre de Manon"
"Fascination"
"Dans la Nuit"
"Sobre las Olas"
"Amoreuse"
"Caressante"
"Chorister"
"Sourire d'Avril"
"Valse Bleue"
"Manola," etc.

HUMORS OF SKATING

LOOKING back on some of the sports pursued at Montana, in Switzerland, that of skating occupies a prominent place in the memory, though no one could compare the skill of the performers there with exhibitions at Villars. Yet I will make bold to say that the skating, greatly inferior though it may be to that of the more renowned and spacious rinks, is in one respect too good. It misses some of the exquisite humors to be witnessed in Regent's Park, and which depend not so much on the skill of the performers as on their want of it. Never at Montana, but frequently in England, there is the suggestive incident of two perfect strangers, generally of different sexes, colliding by some slight miscalculation with each other, and, to save a sudden fall, clinging with a fervid embrace round the waist or neck or either arm each of the other, and holding on trustfully and wholeheartedly till the errant feet are steadied and the parties, at last confusedly recognizing the precise situation, part with hastily murmured apologies, meeting thus once and never again, between the cradle and the grave. One may speculate whether such a slashing of atoms has been recorded in the evening diary by either of those concerned, or whether it has in the whirligig of time led to some no less fervid but less fleeting union, and been the beginning of a life-history of conjugal peace.

Another humor of the ice I can recall which unfortunately could not be reproduced in Switzerland. Some forty years ago, no less, we repaired for an afternoon's skating to the Welsh Harp, Hendon. I have never been there since, but can remember the grand expanse of inferior ice and the huge crowd on it. People were standing in thick clusters, talking and laughing, or wildly whirling about or patiently practising rudimentary figures where space allowed. One youth of the second sort was speeding round the lake as hard as he could go, and was dashing towards a group of persons intending presumably to skim past them without personal contact. Unfortunately a young man on the outside, while talking harmless vapidities to his lady friend, moved about a foot outwards, just at the wrong moment, and about half of his frame was suddenly caught in the onset of the "scorcher." The latter buffeted him violently, and careered on, not looking round. The victim of his roughings was not at once knocked down, but set rotating. His staggers, though obviously abortive from the start, for a second or two took that form. He waltzed alone, uneasily, and with irregular lurches like a top just before it falls; and while this was going on, he began his remonstrance in language, it seemed to me, of remarkable self-restraint: "Sir, I think you might at least stop and apologize when you knock a man down." So we all thought, but this was just what the scorcher did not do; and the complainant who began his plea while still rotating continued it in a crescendo of gathering emotion, as the other was now almost out of hearing, and ended it with a loud shout in a sitting posture, the voice rising as the body sank. It was difficult not to apprehend that his conduct, though kept well within bounds,

may not have enhanced his dignity in the eyes of Phyllis; and indeed a promising love-affair may have been rudely checked as he sat on the ice patiently restoring his bowler hat to its original shape, and yelling till his voice cracked after a wholly indifferent stranger. But pathetic though the incident was, from some points of view I could not help being glad that it happened so near to where we were standing; and forgetting it is out of the question now.

Different in its appeal to the imagination was a catastrophe that occurred to a tall bearded skater very soon after the collision above described. We were standing talking in a small group, in a crowded quarter of the lake, when a singular noise made us turn our heads. It was a mixture of a hiss and a rumble, and the rapid crescendo of it made the less robust of our party fear an approaching mischief. But there was nothing to be alarmed at. The skater had fallen, and was gliding rapidly over the ice in the position which he had involuntarily assumed — that is to say, quite at full length on his stomach, and proceeding not sideways nor feet foremost, but as a tobogganer head foremost, the two hands being flat on the surface close by the shoulders. He must have been going at a rare pace originally, as none of us had even heard his fall, and he had been slipping along for an unknown distance as he passed us, the pace just beginning to slacken. The most picturesque fact about him was the heap of ice fragments which gathered in front of his beard as he swept along, and formed a novel setting for the fixed and glassy resignation of his face. We thought we had never before seen a human being so like an express train.

But as I have already remarked, such amenities of a

pastime as these are not to be seen in Switzerland. People skate too well to collide, except of course at hockey, but then it is part of the day's work, and misses the glorious element of the unexpected. And they are too decorous to get up sufficient speed for the superb onset of our "scorcher" or the prone onrush of the bearded man. Whatever other attractions hale us to Montana, we must acquiesce in the loss of these subtle sidelights on human society; and the pity of it is that owing to the infrequency of frost in modern England, they tend to become merely the touching memory of a long-past dream.

None the less the skating-rink is a delicious spot, especially at the luncheon-hour when flushed and hungry skaters and curlers gather in friendly groups round the well-earned prog. There were several days last January when the interior of the shed facing the sun was too hot for comfort, but outside it was always perfect; sometimes a very gentle breeze, ordinarily nothing but the matchless tingle of the crisp unmoving air. And occasionally it comes about that a trained exhibitor of the English or Continental style of skating would stray over from Villars to Montana, either to play in a bandy match or for social reasons, and would give us the delight of watching the Mohawks done to perfection and with consummate ease, or better still, a whole series of complex evolutions gone through by two ladies in combination. Nothing prettier could well be imagined, except of course a flight of ten thousand starlings in September.

— Reginald Cleaver.

From *Winter Sport in Switzerland.*

SKATING IN HOLLAND

SKATING in Holland is not merely a favorite amusement, it is a common mode of locomotion. The peasant skates to market, the mechanic to his work, the tradesman to his business, whole families skate from their country homes to the town, with their bags and baskets on their backs, or in sledges they draw along with them. Skating is as easy and natural to them as walking, and they skim over the ice with such speed that the eye has some difficulty in following them. In former years wagers were often laid among the most swift Dutch skaters, as to who could keep up with a stated train, skating upon the canals that run parallel to the railway, and in most cases, not only did the skaters keep up with the engine, but they would at times shoot forward and keep ahead of it for a few minutes. People skate from The Hague to Amsterdam and back again the same day; the Utrecht University students leave that town in the morning, dine at Amsterdam, and are at home before night; the wager of going from Amsterdam to Leyden in little more than an hour has several times been laid and won. And it is not only the wonderful speed, but the unerring surefootedness with which such long journeys are accomplished that is worthy of admiration. There are peasants who skate by night from one town to another. Young men go from Rotter-

A PEASANT BOY OF VEERE ON SKATES.

dam to Gouda, at Gouda they buy a long pipe of chalk and skate back to Rotterdam, carrying it safe and sound in their hand. Sometimes as one is walking by a canal, a human figure will be seen to shoot past like an arrow and vanish almost as soon as caught sight of; it is some country lassie carrying milk to town. Besides the skaters there are sledges of every shape and size; sledges pushed along by a skater, sledges drawn by horses, sledges propelled by means of two spiked sticks, wielded by the person sitting inside; wheelless carts and carriages placed upon two wonderful planks, which glide along the frozen snow as swiftly as the sledges. Upon festive occasion even the Scheveningen fishing-craft have been known to appear in the snow-covered streets in The Hague. Formerly ships with all sails spread were sometimes made to glide over the ice upon the large rivers, and so rapid was their progress that the faces of those on board were reduced to a pitiful state from exposure to the cutting wind such as might well make one shudder, and few indeed were the people daring enough to undergo this ordeal.

The finest *fêtes* in Holland take place on the ice. At Rotterdam, when the Meuse is frozen over, it becomes the favorite resort for social gatherings and amusements. The snow is swept away so as to leave the ice as clear as a floor of glass; cafés, eating-houses, fancy cottages, booths for theatrical performances, crop up on all sides upon it; by night it is lighted up; by day it is thronged with skaters of every age, sex, and rank. In other towns, especially in Friesland, which is the classic home of the art, there are skating clubs that promote public contests and give away prizes. Poles and flagstaffs are erected

along the canal banks; stands and stockades are erected; a huge multitude of people from the neighboring villages flock together; the cream of local society is present; bands of music play uninterruptedly; the skaters appear in special costumes, the women all wearing trousers; races for men alone are run, then the women compete among themselves, then men and women in pairs, and the names of the winners are inscribed in the annals of the art and acquire lasting renown.

There are two distinct schools of skating in Holland, — the Dutch school proper and the Frisian school, each of which uses a different shape of skate. The Frisian school, which is the oldest, aims solely at speed; the Dutch school strives to attain grace as well. The Frisian runs on direct before him, swerving neither to the right nor left, his eye fixed upon his goal, his body bending forward in that direction; the Dutchman proceeds by zigzags, turning alternately to the right and the left, by a movement of the hips. The Frisian is the arrow; the Dutchman the giddy rocket. The Dutch school suits women best. The Amsterdam, Hague, and Rotterdam ladies are indeed the most graceful skaters in the United Provinces. They begin to skate as children, and continue it as girls and married women, simultaneously reaching the crowning point of their beauty and their art, and their little skates draw from the ice they skim over the sparks that set so many hearts on fire. Some ladies attain to a marvellous degree of perfection. Those who have seen them skate aver that no description can give an adequate description of the graceful bends and curves, the countless soft and becoming attitudes they display in their swallow or butter-

fly-like flight, or how completely their placid beauty is metamorphosed and enlivened by the exercise, which the intricate manœuvres they perform involve. The men are in no wise behind the softer sex. They perform all sorts of games and difficult feats upon the ice; some cut fanciful figures or sentimental sentences in their circling progress, others spin round with incredible velocity and then skim a long way backwards, standing upon one leg, others glide about in hundreds of complicated twists and turns, all clearly defined in very small compass, either doubled up or standing upright, in the most distorted postures, bending down like gutta-percha puppets, set in motion by a hidden spring.

The first day the canals can show a sheet of ice thick enough to skate upon is a red-letter day in a Dutch town. Early-rising skaters, who have put the ice to the test at the break of day, spread the news, the papers triumphantly proclaim it, flocks of children shouting with joy scatter all over the streets, servants, male and female, ask their master's leave to go out, with a look that denotes their fixed determination of rebelling should their request be met by a refusal, old ladies forget their age and ailments and rush to the canals to compete with their friends and daughters, the large pond in the centre of the town at The Hague, near the Binnenhof, is carried by storm by a multitude of people, elbowing and pushing each other, mingling in one confused, seething mass, like a crowd seized by a fit of dizziness; the cream of the aristocracy skate upon a pond in the park, and there officers, ladies, M.P.'s, students, old men, and boys may be distinguished, flitting here and there in the falling snow, a crowd of spectators flocking around them,

the loud music of the military bands lending additional animation to the merry scene, and the great disk of the Netherlands sun shining through the giant beeches and sending them its last dazzling farewell ere it sinks below the horizon.

When the snow is firm enough, the sleighing begins in good earnest. Every family has its own sleigh, and at the hour for driving out, hundreds of them may be seen issuing forth. They rush swiftly past in long strings, two or three abreast, some in the shape of shells, others made to imitate swans or dragons, boats and coaches, gayly painted and gilt, drawn by horses covered with costly furs and smart trappings, with feathers and rosettes about their heads, their harness studded with glittering ornaments, bearing ladies warmly wrapped up in sable, beaver, and Siberian fox. The horses shake their heads and toss their manes, shrouded in the vapor that rises from them, bespangled with myriads of tiny icicles; the sleighs spring forward; the snow flies round them like silver foam, and the glittering headlong procession rushes past and is lost to sight, like a whirlwind sweeping over fields of lilies and jasmine. By night when the torchlight drives take place, the countless flamelets flashing by and coursing after each other through the silent town, throwing vivid patches of light upon the snow and ice, look like a gigantic diabolical combat, witnessed by the spectre of Philip II; gazing down upon them from the summit of the Binnenhof tower.

— E. De Amicis.

SKATE-SAILING

SKATE-SAILING seems never to have had quite the popularity which so fine a winter sport deserves. One need not be an exceptionally expert skater to enjoy it; any man who understands how to sail a small boat can catch the trick of ice-sailing in his first trial; it offers the widest scope for the experimenter's joy in trying out one type or another of sail; it can be enjoyed alone, or one may take pleasant company along, either in tow or as a member of "the crew of the captain's gig." Better yet, the pleasant company may have a sail of her own, for the sport does not require more strength and skill than many a girl commands. One might sing, misquoting Kay's skating song:

Let poets harp on the "rolling main";
We'll sing the jubilant crystal plain,
With its merry skaters in winter gear,
And its band of music to charm the ear.
Hurray for the Ice with its pretty fleet!
For not half so graceful, half so neat,
Are white ships scudding before the gale,
As bonny young ladies "under sail,"
  While trimly, primly — left and right —
    They curve and swerve, and poise and wheel,
  Seeking with hearts and faces bright,
    Pleasure and health on the gleaming steel.

The only sport which compares with it is ice-yachting, or its modern development, ice-motoring; but in its entire lack of expensive apparatus it is available a hundred times to the motor's once and leaves the user freer to enjoy the pleasure of sensations a little nearer those of flying than any other can afford. And it is well to remember that the range of possible mishaps is far narrower, and that if one should by accident or storm be stalled, he may fold his sail into a bundle weighing from seven to ten pounds, hang his skates around his neck, and "hike" for the nearest trolley without abandoning (or spending time finding shelter for) a piece of costly property. As for speed, a man may choose his own up to thirty miles an hour — with a fresh wind before the beam — or even forty miles under exceptionally good conditions. Skate-sailing is, in short, exciting enough for any sport-loving man; yet the skate-sail, in its proper proportion, can be managed by any boy or girl old enough to skate well.

The types vary most widely; there is the double-diamond sail invented by Charles Ledyard Norton, a favorite among the boys, made by fastening a light diamond-shaped frame on which has been stretched drilling or cotton twist at either end of a horizontal spar, held back of the skater and tipped and turned in tacking by the skater's extended hands holding the spar; what is often called the Cape Vincent rig is somewhat triangular, or rather of the shape of the space between a bow and its cord when the cord is stretched to the full length of the arrow, supposing that the mainyard of the sail is the bow, and a light spar takes the position of an arrow with the notch resting on the cord and the point slipped into a place pre-

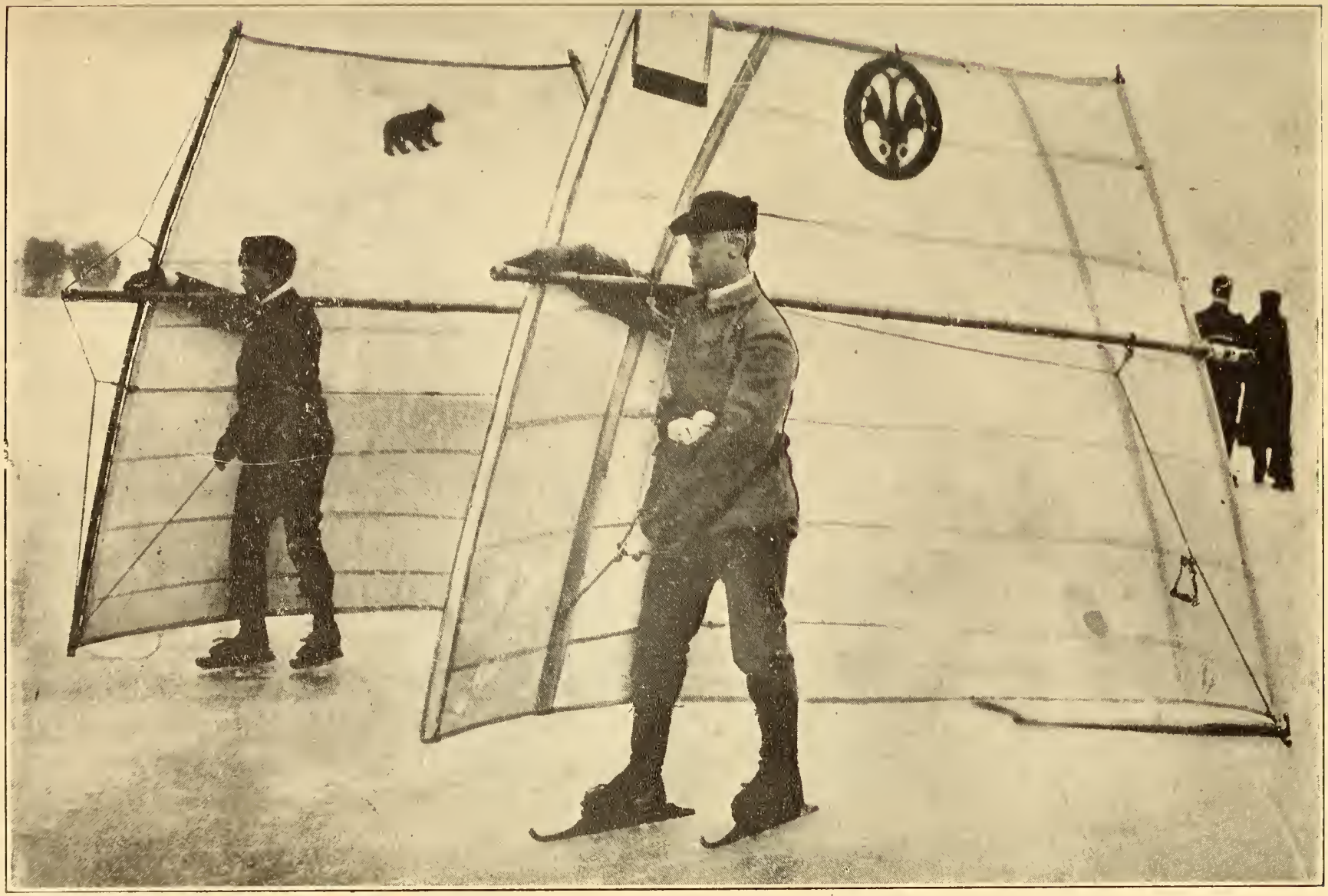
pared to hold it at the centre of the mainyard. It will be seen that such a sail can be very easily furled by pulling the point from its socket. Still another pattern which has been fully described in *Outing* and elsewhere is of the shape of a pennant; its long bamboo yard can be shifted at will from one shoulder to the other, or on occasion its short upright spar may be grasped in both hands and held horizontally with the sail fluttering out behind harmlessly as the skater comes round in the teeth of the wind.

As has happened before in the case of the snow-shoe or the toboggan, it is true, however, that very little real improvement seems to have been made over the earliest forms used, and in the case of the skate-sail one of these is the Swedish sail. This differs from one popular shape of English sail in being less narrow; where an English sail, for example, may have a length of about nine feet and a height of four feet, a Swedish sail is more likely to be nine feet long at its base only, tapering to about five in an extreme height of seven feet. Sometimes it is seen with an even narrower top. J. M. Heathcote thus describes a skate-sail owned by W. F. Adams of the London Skating Club and made for him in Stockholm:—

"It is of white duck, about seven feet in height, about nine feet wide at its base, tapering to about three feet at the top; the spars, which are made of light bamboo, consist of a strong but light mainyard, and of two lighter spars, to which the sides of the sail are fastened from top to bottom. The sail is provided with two sets of reef points on one side, but these are hardly adequate; it would be well to be able to shorten sail on both sides in rough

weather. The spars are so jointed that they can readily be put together or taken to pieces; when they are strapped together and the sail is neatly folded, the dimensions of the apparatus are inconsiderable. Its weight and its appearance are not very different from those of a salmon-rod and a mackintosh.

"Whether he is 'going free' or 'beating to windward,' the navigator must always keep the sail between himself and the wind. When the wind is dead aft, the skater carries the yard behind him on a level with his shoulders, holding it in position with both hands; his body is nearly erect, and his feet parallel with one another, about six or eight inches apart. When he wishes to 'go about' he must remember that he must not act as he would if he were on board a yacht — run the boat's head into the wind, and get way on the new tack; he must rather *wear himself*, at the same time shifting the mainyard from one shoulder to the other, turning his body back to the sail, changing his position so that what was the hind part of the sail on one tack becomes the fore part on the next, and grasping the port spar with the left hand if on the port tack, or the starboard spar with the right hand if on the starboard tack. The employed arm and shoulder will now be thrown forward, the unemployed arm being left free; the body must lean towards the direction from which the wind is blowing, the foot which corresponds with the employed arm, *i.e.* the foot which is to windward, being in front of the other foot, the prows of both skates pointing in the line of intended motion. At each successive tack the position of the body, shoulder, foot, and hand must be shifted; but these manœuvres can be



Photograph by American Press Association, New York

SKATE-SAILING

executed in a few seconds by a practised skater without any danger of 'missing stays' or any other mishap."

The prudent beginner might well venture out at first with a slightly smaller sail and in only a moderate breeze. The manner of sailing before the wind is simple enough, and he may well let himself go thus until the first disconcerting feeling that he is skating on nothing is passed; the slight "lift" of the sail will make him wish that he had put a little ballast in his pockets, but in a few moments he will have discovered the art of keeping his balance.

The construction of a serviceable skate-sail is very simple, although both the size of the sail and the strength of the mainyard, or boom, depend in some degree upon the kind of wind to be expected in the locality where it is to be used. On a hill-guarded freshwater lake and on the wind-swept Hudson very different sails might be available. In general, the mainyard, or boom, should be of strong bamboo, say two inches in diameter and in length about four inches longer than the sail is wide at the point which, as the sail is held in sailing, is shoulder high; thus, a sail for a single skater which is to be about seven feet at the base tapering to a width of five feet in a height of six feet, might have its boom, which is to rest on the shoulder, six feet four inches long. Near each end must be fastened crotches to hold the upright spars. The upright spar, or gaff, may be of lighter bamboo, say one inch and a half, and is attached to the reënforced edge of the sail by means of eyelets such as are inserted in tent flies or by rings sewed on firmly. In the sail of the dimensions given above the spars would be fixed in the crotches of the main boom so that about two feet four inches of the height of the sail is

above the boom and about three feet eight inches below it. A "sheet" or rope extending from the lower corner to be held in the skater's free hand is an essential; some hold that a rigid hand-sprit gives more perfect control of the sail than a rope. The sail itself may be of duck, white with gay insignia cut from "turkey red" stitched on for easier identification from a distance, or in alternating stripes of contrasting colors; often it is made of heavy twilled unbleached sheeting, which can be had of almost any width likely to be needed.

A very similar sail of larger size, for example, twelve feet at the base, tapering to ten in a height of seven feet, may be used by either one skater alone or two, one in front of the other, — and, for that matter, possibly one or two "passengers" hanging on behind the rear sailor. For greater ease in handling such a sail, there may be a strip sewed on it at about a foot from each edge; this strip some three to four inches in width is strongly stitched down along each edge and the gaff or side spar is inserted between the two thicknesses; at the extreme edge a thin strip of split bamboo is inserted in a hem.

Readers of *The Century* will by this time be recalling the very interesting article by Mr. T. F. Hanmer on the Danish skate-sail, which is still a different type, resembling "a square-rigger's lower sail and topsail, the two being in one piece"; the shoulder-yard is bound closely to the sail for its entire length; and the topsail-yard can be reefed at will or completely wound up and fastened to the shoulder-yard.

It is altogether a very rakish rig with its pennant-bearing topmast; but, as he describes it, is fastened to the sailor

by stout straps or heavy cords running from the shoulder-yard over the skater's shoulders, crossing on his breast, again at the back of his waist, and finally being tied in front. Now any sail fastened to the person is dangerous; and it is quite possible that the reason the sport made somewhat slow headway was because of the fact that some forms of skate-sail introduced were, like the English type which is fastened to a man's leg (how *does* he "come about"?), uncomfortable as well as dangerous.

One word more as to the only difficult point of sailing on skates — the one real essential which should be mastered before starting out — the matter of "coming about." W. F. Ollie, whose experience on Lake Erie ice makes his statements authoritative, declares that it may be "made easy" by this method: "The skater moving rapidly with the sail between him and the wind, grasps with his free hand the gaff above the boom; and steering into the wind, lifts the sail over his head; then, continuing to steer around, he brings it down on the other shoulder, and so places it in position for the other tack."

—J. C. D.

ICE HOCKEY

THE HOME OF WINTER SPORT

A CANADIAN, Mr. W. George Beers, in describing Canada as a winter resort, thus writes: "The Province of Quebec must bear the palm of transforming winter into a national season of healthy enjoyment, and Montreal is the metropolis of the Snow King. You can have delightful days and weeks in Toronto, where ice-boating is brought to perfection, and the splendid bay is alive with the skaters and the winter sailors; or in curling or skating rink, or with a snowshoe club when they meet at Queen's Park for a tramp to Carleton, you may get a good company, and, at any rate, thorough pleasure. Kingston has its grand bay, its glorious toboggan slides on Fort Henry, its magnificent scope for sham fights on the ice, its skating, curling, snowshoeing, and its splendid roads. Halifax has its pleasant society, its lively winter brimful of everything the season in Canada is famed for. Quebec, ever glorious, kissing the skies up at its old citadel, is just the same rare old city, with its delightful mixture of ancient and modern, French and English; its vivacious ponies and its happy-go-lucky cariole drivers; its rinks and its rollicking; its songs and its superstitions; its toboggan hill at Montmorenci, succeeding that which Nature has erected every year since the Falls first rolled over the cliffs; its hills and hollows and its historic surroundings; its agreeable

French-English society, the most charming brotherhood that ever shook hands over the past.

"But the favorite winter sport is ice-hockey. The game is carried on under cover in large halls, the floor of which can be artificially flooded and frozen. In this way a smooth, level expanse of ice is secured, a thing that can be seldom got out of doors, owing to the great quantity of snow that lies on the ground. The game is played pretty much as hockey is on grass; the ball or disk the players chase is called a 'puck,' and they make it skim along the ice with hockey-sticks of the usual shape."

The hockey matches between the rival cities are affairs of the greatest interest to the inhabitants. A large number of deeply interested sympathizers always accompany the team that goes to play away from home — in fact, the enthusiasm and excitement reach quite as high a pitch as they do in England over a successful team of local football players. The great trophy of the Canadian ice-hockey is the Stanley Cup, which was first competed for in 1893, and has been competed for every year since, except in 1898. The winning teams have generally been furnished by Montreal or Winnipeg, though sometimes the winners have come from Toronto, Ottawa, and other cities. Two games are played, and all the goals obtained by the one club are added together and put against the total number of goals gained by the other club. The holders of the cup keep it until they are defeated, and they have to play whenever challenged. For several years the cup was held by the Montreal Wanderers; in 1911 it was won by the Ottawa team.

THE CANADIAN NATIONAL GAME

In the good old days of our parents, and in even more remote times, the crude and exciting game of shinny was the fashion, and every lake and pond in the country was the scene of play. Our forebears cared little for rules, and so long as a player lived up to the all-important one, to "shinny on his own side," no rule was broken. . . .

In those days there were no shin-guards, padded pants, or other protections for the players, so the risk of injury was considerable. Beginning as a systematized game, and with the weather conditions of a country like Canada, it was natural that the attention of the athletes should be given to the task of creating a national winter sport. Even with such a foundation to work upon, it was not to be expected that this development could take place in a short time, and, roughly speaking, the actual change of shinny into hockey was very gradual. Since the advent of hockey itself many improvements and changes have from time to time been made to bring it up to its present state of perfection. The evolution from this haphazard game into the modern systematized play was gradual, and hockey in anything like its present form was not played in Canada or elsewhere previous to about 1880.

The present game of ice hockey requires a field of ice with boundaries for the playing space not less than one

hundred and fifty feet long by fifty-eight feet wide; at either end of the longer space two goal-posts are erected. They are four feet in height and six feet apart. Two teams of seven players each defend their respective goals, from which they attack the goal of their opponents.

The implements consist of hockey sticks with long handles and flat, crooked blades, with which is "dribbled," lifted, or shot, a disk of vulcanized rubber, one inch thick and three inches in diameter, called the "puck." Points are scored, and the results of the game are determined by passing this puck between the opponents' goal-posts.

The game is played in "halves" of twenty or thirty minutes, with an intermission for rest. The players have special titles and stations as in foot-ball, the seven positions being three forward (two "wing" or end players, and a centre), one rover (placed just behind the centre), one cover-point (behind the rover), one point (behind the cover-point and just in front of the goal-keeper), and the goal-keeper himself, who stands directly between the goal-posts. In the United States there is no rover, but that player is moved up into the line, making four forwards and three back field men. The rules are simple and easily understood. The puck may be pushed along continuously against the hockey stick, but not carried or thrown with the hand; the stick must be kept below the shoulder, and there are the usual provisions against foul or unfair tactics. There is also a penalty for offside play, as in football. In ice hockey, offside occurs when after a player touches the puck, any one on the same side, who at the moment of touching is nearer the opponent's goal line, touches the puck himself, or prevents an opponent from

A PRACTICE GAME OF HOCKEY

doing so, until the opposing side has in some way played it.

The game, in Canada, is played both out and in doors; in the United States, chiefly in manufactured ice rinks. If proper boundaries are erected, it may be played very enjoyably in the open, in cold weather. . . .

The popularity of the game may be judged from the fact that Toronto alone contributes fifteen clubs, while the leading towns of the province are all represented, and in every village in Canada is an organization for hockey that plays for several months of the year.

There is no doubt that Canada has found a real national winter sport, ranking second to no other in popularity, and for the very good reason that the game has the merit of demanding more of speed, skill, and endurance than any other sport of the season. . . .

Each province in Canada has its distinct organization, but the championship of the various associations represents only the provincial honor; and in order to overcome this difficulty Lord Stanley, now the Earl of Derby, in 1893 presented a trophy, to be known as the "Stanley Cup," for competition between the championships of the different provinces, the winning of which would carry with it the championship of all Canada.

It is a challenge cup, and even if won more than once will not become the property of any team; but the winners may have the names of the winning team and the year in which it was won engraved on a silver ring fitted on the cup for that purpose. During the first ten years of its history especially the finest exhibitions of speed and science in the game of hockey were those games played by teams of champion-

ship rank in quest of or defending the Stanley Cup. Better or more exciting hockey has never been seen than in the famous games between the Victorias of Winnipeg and the team from Montreal.

Montreal has had the honor of holding the championship for the greater part of the time since 1893. . . .

With the growth of hockey from its original form into a recognized sport, played under rules enforced by a governing body, the difficulty of providing against rough and foul tactics soon appeared. The spectators formerly looked for a certain amount of heavy "body-checking" and roughness, which usually resulted in accidents and injuries more or less serious; however, as the game developed science, it became apparent that roughness was not a necessary feature of play, and that a good player invariably detracted from his usefulness by such indulgence. So the rules were made more stringent, and body-checking and other such questionable plays were restricted with a view to discouraging roughness. The speed and skill of the sport is marred by rough play, and the referee alone is to blame if this element becomes prominent in any contest, because the rules are clear and stringent. With the modern improvements in the way of guards and padded uniforms, a player runs much less risk of coming to grief than formerly, yet the great speed of the game makes it quite impossible to guard against all accidents. Body-checking probably is responsible for more injuries than any other element of the play, and should be watched most carefully by the referee, who has unusual discretionary powers, and, if competent, can penalize offenders so promptly and severely as to eliminate such tactics. There is only one time when the use of the body-check is

permissible, and that is on the defence. A "point" or "cover-point" player frequently finds the body-check his only means of stopping a rush on goal and a probable score, but in this case the result is not usually serious, for the "defence" player is standing still, or moving very slowly, awaiting the approach of the opposing "forward," and thus the impact of the two men is not heavy. On the other hand, when both opponents are advancing at great speed from opposite directions for the "puck," the use of the body-check is dangerous, and at the same time quite unnecessary. A good rule for the referee to follow is to insist upon the players confining their efforts to obtaining possession of the puck, and make them play the puck and not the man. If this rule is enforced, many injuries will be prevented. There is seldom occasion for an advantageous use of the body-check by the forwards, as their play is not stopping rushes, but making rushes, and it is a notable fact that the best players in the country are seldom hurt, and never indulge in rough tactics of any kind Probably the most annoying and meanest kind of play is when a man in pursuit of another who has the puck ostensibly endeavors to reach the stick of his opponent, but in reality only succeeds in reaching his feet and legs, and chops away at these until they are bruised from the heel to the hip. Another frequent cause of roughness is "interference" play, which is much practised; but being decidedly "offside" play, is foul, and should be called down by the referee in every instance.

The manner of play itself has undergone many changes and improvements, all of which have tended to make the game faster and more scientific. One noticeable development is that of combination work, displacing the old-style

individual game. Now the plays are all concerted, and the rush of the forwards down the ice at lightning speed, passing the puck from one to another, converging until the opponents' goal is almost reached, and an attempt to score made, is as exciting and brilliant as any play in any game, outdoors or indoors. If in this movement the puck is lost to an opponent, the marvellous rapidity with which the tables are immediately turned, and an onslaught made on the opposite goal, reveals the science and skill of this, the fastest and most exciting of games. The game is so extremely fast, indeed, that an instant's delay is easily fatal to success. The forwards, particularly, must think quickly and act instantly.

— Charles Patterson.

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"PLAYING THE PUCK"

THERE is something marvellous in the dexterity which some players acquire in playing the puck. With a quick turn of the wrist they will cause the flat disk to leave the ice and fly through the air six feet high like a missile straight for the goal posts of the enemy. Another task is to make the puck carom off the side of the rink when one is pressed by an opposition player coming from the right or left front, then by dodging round the coming skater resume possession of the rubber before the other can turn round. By a rapid right and left dodging motion of the stick, with the puck at its end, a skilful player may carry the disk ahead of him past a number of the opposition players and secure a shot on goal.

Crowds of spectators attend the city matches. Along the sides of the rink stand ranks of the most enthusiastic friends of the players to applaud and to encourage. In the ends of the buildings on raised galleries sit scores of fair ladies wrapped in their warm furs, who show by their attendance that they admire muscular manhood. The electric and gas lights are turned on. The referee advances to the centre of the ice and the umpires take post at their respective goals. The members of the two teams, one in a black and the other in white uniform, file on to the field. Preliminaries are arranged; the players take their places. One player of each side faces off in the centre of the field, by having the

puck placed between the flat of their respective sticks. A pause of breathless interest, and then the referee calls out: "Are you ready? Draw!" and they are at it like a flash. Hither and thither the rubber goes. It glides, caroms, flies, rebounds, so swiftly that its whereabouts is known half the time only by the movements of the players, who dash after it by intuition. It is suddenly lifted clear from the ice and curves swiftly toward one of the goals. If it is not checked by curved sticks raised to stop it, it may reach the goal-keeper whose knees stop it and a slash of his stick carries it off to one side. Then the point takes it in the opposite direction. In his flight he may dodge, or carom the puck, or pass it back to one of his own players if his progress is checked, but he is now virtually out of the play for the time being, because he is ahead of the puck, and cannot touch it until it has been sent on ahead of him again, and even then he cannot touch it until it has been touched by an opponent. If he is first to reach it, he may only lay his stick behind the puck to check it instantly after the other has delivered his play.

Now one of the forwards has the puck well down upon the enemy's goal, and his dashing attack is supported by every man who can be spared, as they close in to rush it through. But there is many a slip in hockey. A foul occurs in front of the goal and there is a face off. A face off there is dangerous, and the defenders mass solidly to protect their goal. One of the attacking players faces off, the rest open up like a fan behind him to shoot on goal if the puck can back out of the defence. A scrimmage in front of or close to the goal is the acme of excitement. Each player strains every nerve in the attack or defence, the goal-keeper bends low, his muscles tense, his eyes following the rubber like

those of a hawk. At last by a skilful sweep of the stick the goal is relieved and the play shifts to the centre of the field, and then begins some beautiful individual and team play, as there is now scope for swift skating and artful dodging. It seems strange that men are not maimed or injured as they skim around at such breakneck speed.

Without a moment's warning, for the unexpected always occurs, the rubber goes down upon one of the goals and is swiped between the goal-posts, past the vigilant warder of the gates. Up goes the arm of the umpire and the roof of the rink rings with the cheers of the friends of the victorious side, who wave their sticks in the air in sympathy with the applause. There is a rest of a few minutes, ends are exchanged and play resumed. And so it goes until the last goal is scored. In the Northwest it is the leading winter sport; and that too in the very country where the curler's paradise is supposed to lie.

—J. C. Allen.

THE RULES OF THE GAME OF ICE HOCKEY

THE rules of the game of ice hockey vary slightly as they have been adopted by one league or another in the United States or Canada, and it is, of course, advisable for any organizing team to consult the official rule book of that league of which it expects to become a member, but there is no difference of opinion on any essential point, and these are as follows: —

The Object. — The game is played on a hockey rink by two teams of not over seven players each, whose object is the scoring of the largest possible number of goals by driving with a hockey stick a rubber puck between the goal-posts on the opposing side. The team scoring the greater number of goals during the periods of play is declared the winner.

The Rink. — In the United States the rules permit the minimum length of a hockey rink to be one hundred and twelve feet by fifty-eight feet; Canadian rules require that the rink be "at least one hundred and seventy-five feet long by sixty-five feet in width." The boundaries are guarded by boards from a foot to four feet in height.

The Goals. — A goal uniformly consists of a goal-net supported by two upright posts four feet in height, fixed firmly in the ice, six feet apart; a goal is placed midway on the goal-line at each end of the rink. Rules differ as to the distance which this imaginary goal-line must be from the

edge of the ice, but the usual practice is to have it "at least ten feet from the end of the ice." A goal is scored when the puck has entirely crossed from the front, below the level of the top of the goal-posts, a line drawn between them.

Sticks. — A hockey stick must be made entirely of wood; tape binding is permissible; a stick must not be more than three inches wide in any part or more than thirteen inches long at the blade.

The Puck. — A puck is a disk of vulcanized rubber, three inches in diameter, with a uniform thickness of one inch. In play it may be stopped by the stick, skate, or any part of the body, but not carried or held or knocked on by any part of the body or skate.

Positions of Players. — At the opening of a match the captains of the two contending teams toss for the choice of sides. This settled, the players on each side take at the opening of the match the positions of goal-keeper, point, cover-point, and forwards.

The goal-keeper maintains a standing position directly in front of the goal which he is defending; he may not, during the play, lie, kneel, or sit upon the ice; he may stop the puck with his hands, but may not hold or throw it.

The point position is directly in front of the goal-keeper's position, the cover-point, again, is directly in front of the point. The forward line is an imaginary line crossing the rink from side to side midway between the goals. The wing forward positions are at either end of this line and the centre forward at its middle. If seven men are playing on each side, the rover forward takes position between cover-point and the centre.

Face. — A place is the placing of the puck thrown on the

ice between the sticks of two players, one from each side. From this position the game begins when the referee, as he throws the puck, blows a whistle or calls "Play." The centre forwards from each side face off from the centre of the rink at the opening of the game and after each goal is scored. The referee also orders a face after any irregularity in play, and whenever play is resumed after stoppage for any reason.

Offside Play. — A player may hit the puck only when he is within a rectangle formed by his own end of the ice, the sides of the rink, and an imaginary line running through the centre of the puck at right angles to the side-lines. It is offside play when, after a player has touched the puck, any team mate who is at the time nearer the enemy's goal-line, shall hit the puck himself or prevent an opponent from hitting it, before some one on the opposing side shall have played it. Loafing off-side, that is, remaining beyond the rectangle in which he may play, for more than a reasonable time is not permitted. But a player defending goal may play the puck as it bounds off his goal-keeper within a space of three feet out from the goal and extending to the sides of the rink.

An offside play calls for a face at the point where the puck was last played before the offside stroke.

Fouls. — The stick may not be raised above the shoulder, except in lifting the puck. Charging from behind, tripping, holding, pushing, slashing with a stick, or cross-checking of an opponent is not permitted. No player may interfere with an opponent who is not playing the puck. An offside player may not touch the puck or interfere with any opponent. A deliberate offender may be ruled off the ice for

any time in the discretion of the referee for loafing, offside, unfair, or rough play, foul or abusive language, and in such case no substitute shall be allowed.

Puck off the Ice. — When the puck goes off the ice behind the goal-line, or a foul occurs behind the goal, the puck shall be taken by the referee to a point five yards in front of the goal, on a line at a right angle to the goal-line from the point where the foul occurred or the puck left the ice. When the puck goes off the ice at the side, it shall be similarly faced five yards from the boundary line on a line at right angles thereto from the point crossed by the puck.

Change of Players. — No change of players should be made during a match; but if any player is compelled to retire by the breaking of a skate or other accident, the opposite side must drop a player to equalize the game and the match proceed. In the United States it is customary to allow substitutes.

Playing Time. — In Canada the playing time of a match game is one hour, exclusive of stoppages, in two halves, with a ten-minute interval. In the United States it is usually forty minutes play with a ten-minute interval after twenty minutes. Time is taken out for all stoppages by the referee. A tie may be played off in an extra period following a five-minute interval after the second half, or in a series of ten-minute periods, with a change of end after each five minutes, and intervals of five minutes between one period and the next. All of these particulars may be modified by preliminary agreement between competing teams.

The Referee. — A referee should have entire control of the game. The team captains may agree with his approval upon two timekeepers, who keep the score and an account

of the time spent in actual play, and notify the referee of the expiration of the play periods and intervals; the captains may also agree upon an umpire for each goal who reports to the referee whenever a goal is scored. If the captains do not agree in a choice of these officials, they are appointed by the referee, who may also appoint, if he desires, a third timekeeper to see to it that penalties of suspension for a limited time during the game are fairly obeyed and an assistant whose duty shall be to report the occurrence of a foul or other irregularity in play.

Compiled by comparison of the official rules of the stronger leagues in United States and Canada.

CURLING

THE GAME OF CURLING

HARD frost of two or three days' duration provides ice of sufficient thickness for curling, and which is to be found on some neighboring loch or pond, either natural or formed for the purpose. The curlers repair, at the appointed time, to the place of rendezvous, each provided with trampets to steady the person in the act of playing, with a besom to sweep the ice, and with two curling-stones. The stones are of granite, spherical in form, finely polished on the under side, and furnished with a handle for throwing on the upper. The weight of each stone is from about thirty-three pounds to forty or more, according to the taste or strength of the player. In order to play the game, the first process is to clear and prepare a suitable space of ice. A portion forty-two yards in length, by some ten yards broad, is marked off; at each end, thirty-eight yards apart, are cut marks called tees or witters. This portion of ice is the rink;[1] and with circles described round each tee as a centre to guide the eye in estimating the position of the stones when played, with one line drawn across the middle and one seven yards before each tee, it is complete and ready for playing. The line in the middle of the rink marks the place where sweeping may commence; the lines before each tee are the hog scores,

[1] For a diagram of the rink see page 158.

which must be passed by the running stone — if not, it is removed from the rink as a hog, and held as useless for the round. Four players form a side, headed by a skip, or director, who is, in fact, the commander-in-chief of his corps. The principle of the game is simple. The stones of either party played from one tee to the other, and found at the conclusion of the round to be nearest the tee, count as shots. A game is generally reckoned as twenty-one shots; the side which first makes good that number claims the victory. But to give an idea of actual operations. The player on one side is followed alternately by the player on the other, until all the eight players have cast their stones. It is the aim of the leader on either side, standing at the one tee, or a yard or two behind it, to place his stone in a vantage position near to or some short distance in front of the opposite tee. Should the first stone of the first player be favorably placed, and it remains untouched by the play of his opponent, it will be his endeavor to put down a guard some distance before it, so as to prevent its removal. If he does so, the opponent will probably be directed by his skip to remove the guard, that the winner or nearest stone to the tee may be struck away by the next player of that side. This may be done, and so fairly that the striking stone rests in the place of the one struck away. It will then be the aim of the other side in turn to guard this stone, which has become the winner; and so the struggle may continue till all have cast their stones. As the stones are played and lie in all manner of positions around the tee, the game gets much more complicated than we have indicated, and requires much more knowledge and the nicest calculation in giving directions, and the utmost care and precision of aim

on the part of the player. The stones may be so mixed that an attempt to remove the winner of the one side, if unsuccessful, may result in yet greater damage to the other. When a stone lies close to the tee, and is so thoroughly guarded as to be impregnable to a direct stroke, it may yet be removed by a dexterous inwick. The inwick is effected by designing a stone some distance in front of the tee, and out of the direct line, and forming with the tee an angle of forty-five degrees, more or less. A stone played with skill upon a stone so placed may diverge direct upon the winner resting on the tee, so as at once to remove it and rest in its place. This is one of the finest points in the game of curling. A good curler, when his hand is in, may be depended upon to take the shot by an inwick. The excitement both of players and spectators becomes intense when a closely contested game draws near a close, when perhaps both sides have attained twenty, and are fighting at the last round for the decisive shot. It comes at length that the issue depends upon the play of the respective skips. The thing required to be done by one or the other, as it may happen, amounts sometimes to all but an impossibility. The winner is well guarded, still an inch or two of it is seen. If it remains to the end, the victory of course falls to the one side; if removed, it belongs to the rival party. The last player takes up his position, the last stone remains to be thrown, and that throw is charged alike with defeat and triumph; but to which party who yet can tell? The ice is cleared from the crowding spectators to admit daylight through the rink. The veteran curler has adjusted himself on his trampets, steadily, deliberately he takes aim at the visible portion of the winner, dimly descried through the

opposing barrier of blockading stones in the distant perspective. The suspense begets a solemn silence. Delivered by the master hand of a hero of many fights, the stone speeds towards the mark; it brushes the guards on the one side and the other, creating a smoke of granite particles, but rushing on, in an instant more, it spins the winner out. Fast follow the roar of applause from the excited spectators, and the shout of triumph from the victors.

When the writer first took part in the parish bonspeils of Scotland, some thirty years ago, eight men formed a rink of players, each playing one stone. The new system, introduced by the Royal Club, of four players with two stones each, has now become universal wherever curling is practised. In the first place it conduces to good play. A player might fail from some slight miscalculation with his first stone to do as directed, but with the remaining chance which his second affords, he is pretty sure to make good his failure. If, for instance, he has expended too much force and the stone runs past the tee, and is for the turn lost, that experience enables him to make a more accurate estimate, and to rectify the error at the next throw. And whether the play is to draw a shot, to remove the winner of the opposite side, or to guard that of his own, it is to the player personally a great satisfaction, and mitigates the poignant chagrin which the failure of his first throw creates in his own mind, that he has a stone still in reserve, which, should his opponent's play leave him the opportunity, he makes certain shall successfully realize his aim. Again, a force of eight men on each side engages sixteen in the business of the game, and leads to crowding and confusion on the rink. Half the number, as now settled, is sufficient for the work required.

When the director and player are engaged at their several ports, two are left free to attend to the essential department of sweeping. The sweeping is entirely under the control of the skip, who intently watches the progress of the running stone. If he judges it lacks force and requires all possible aid to bring it up, he gives the order to sweep, and the besoms are instantly at work on the ice to give it a smooth and clean pathway, and as instantly does their action close at the word of command to that effect. According to the rule of the Royal Club the sweeping is from the middle line of the rink. The late Lord Eglinton advocated sweeping from tee to tee; the point was fully discussed, and by a resolution of the club it was settled that the besoms should be used from a point midway between the tees. To be a good sweeper is next to being a good player. By the proper management of the brooms a stone may be made to run to the tee hole which would otherwise rest far behind. Thorough subordination and obedience on the part of the players to the skip in all matters of the game are implicitly rendered. Any one may tender his advice as to what is best to be played, but the skip is sole judge, and his decision is final on the doubtful point. No captain on board a ship, or commander on the field of battle, is more absolute than he. In all great matches an umpire is appointed, who has power to stop the play when the ice is, in his opinion, unfit for proceeding with the contest, in which case the match must be commenced *de novo* at some future and fitting opportunity. The umpire also decides in case of non-agreement on the part of the skips as to which of two stones is to be counted as a shot. The measurements are taken from the centre of the tee-hole to that part of the stone nearest to it.

Sometimes the rival stones lie so equally near as that no shot for that round can be claimed by either party. All stones lying beyond a circle of a radius of seven feet are not counted in the reckoning of shots.

The main points in the game of curling resolve themselves into the following: Drawing to the tee, guarding, removing the guard, direct striking of the winner so as to remove it, striking out the winner by inwick, and striking by outwick so as to drive the stone struck inward to the tee. Of these, drawing is perhaps the most difficult, and requires the nicest calculation of force. When it is hopeless to try to remove the winner because of the full guarding, it is sometimes possible to take the shot by drawing. This course is often directed by a cautious and experienced skip who has confidence in his man. It requires nice play, and all necessary aid from the alert sweepers.

Various epithets are applied to curling, all more or less expressive of its main characteristics. It is styled an anxious game. The whole soul of the player is absorbed in the play. Nor does he deserve to be called a curler at all who is not a keen curler. The rapid alternations of feeling — elation at a good hit, disappointment, vexation at a damaging miss; the satisfaction of the one party at the favorable position of its stones, suddenly changed to mortification by an entire alteration from a successful and damaging throw of the opposite side; the joy, on the one hand, of securing shots — one, two, three, or four — as the result of the round, and the pain on the other of losing ground, all contribute to the intense anxiety attendant on curling. To this characteristic the Scottish poet, Grahame, the author of the *Sabbath*, alludes in the following lines:

"How rival parishes and shrievdoms keep,
On upland lochs, the long-expected tryst
To play their yearly bonspeil. Aged men,
Smit with the eagerness of youth, are there:
While love of conquest lights their beamless eye,
New nerves their arms, and makes them young once more."

It is a slippery game, not only that it is played upon a slippery board, but because in its progress and result it is uncertain. From some combination of adverse circumstances, in no way accountable, a rink of choicest curlers is sometimes signally defeated. The play in itself may be good, and yet the players unlucky. Success or non-success in a game may actually hinge on the particular point on which a stone is struck; a single inch one way or the other would have made all the difference in the final result. The state of the ice and of the weather affects the sport considerably. Bias, snow, thaw, water, wind, are so many disturbing causes. A strong, smooth, unbiassed piece of ice, and a calm, clear, bracing day, is what the curler most desiderates. The writer has pleasant memories of curling on such exhilarating days, on the Scottish lochs when the winter sun brightened the scene, gave a pleasant warmth, and cast its beam athwart the surrounding, silent, and snow-covered hills. Any one approaching a woodland loch, covered with absorbed and busy curlers, would appreciate the term "roaring" applied by Burns to the sport in the opening lines of the *Vision*: —

"The sun had closed the winter day,
The curlers quat their roaring play."

There is at once the ringing, bumping noise of numerous running stones on the ice; the excited ejaculations of the

men engaged; the loud voices of the skips giving directions to the players, or thundering the word of command to sweep, or to leave off sweeping; the eager cry of expectation as the stone speeds to its mark, and the shout of "Well done" borne along the rink from tee to tee to the gratified ears of the curler who has played a successful stone. Conviviality is also said, and with some truth, to be an accompaniment of curling: but any allusion to the merry meeting of the players, and to the curling songs sung on these occasions, does not come within the scope of his brief sketch. One of the most delightful features of the pastime is the commingling which it occasions of all ranks and classes on an equal footing. "One touch of nature makes the whole world kin." Social distinctions completely vanish before the all-engrossing anxiety and eagerness of a keen contest on the ice. Men are knit together by an all-pervading sympathy and a common interest. A clergyman, who on Sunday from the vantage ground of the pulpit instructs his hearers in the duties of religion, enters with them on the following day into the excitement of a curling contest, and has his merits on the icy board put to the test, and decided altogether apart from his status as a preacher. . . . Of the beneficial effects of curling, apart from the qualities as an amusement, morally and socially, there is no room for doubt. Its tendency is to draw class to class, and to promote goodwill and good feeling through all ranks of the community.

— CHRISTOPHER NORTH.

An article in *St. Paul's Magazine,* entitled "A Description of the Game of Curling for the Instruction of Englishmen and Novices."

THE GENERAL RULES OF THE GAME OF CURLING

1. THE length of the rink for play, viz. from the back end of the crampit to the tee, shall be 42 yards, and in no case less than 32 yards. Alterations are provided for in Section 17.

The tees to be set down 38 yards apart. Around each tee as a centre, a circle of 7 feet radius shall be drawn. (In order to facilitate measurements, 2-foot and 4-foot circles may be laid down.) In exact alignment with both tees, a line, called the "central line," shall be drawn, extending to a point 4 yards behind each tee. At this point a line 18 inches in length, at right angles to the central line, shall be drawn, on which, and 6 inches from the central line, the heel of crampit shall be placed. The hack in this position shall be 3 inches from the central line, and shall not be more than 12 inches in length.

Lines shall be drawn across the rink at right angles to central line, as indicated in diagram, and called "hog scores," "sweeping scores," "back scores," and "middle score."

The hog score shall be placed at one-sixth part of the entire length for play.

The sweeping score shall be placed across the tees, for the use of the skips, and the middle score midway between them, for the use of the players (for regulation of sweeping see Sections 9 and 12).

The back score shall be placed just outside and behind the 7-foot circle.

N.B. — Every stone shall be eligible to count which is not clearly outside of the 7-foot circle. Every stone shall be a hog which does not clear the score, and must be removed from the ice; but no stone to be considered as such which has struck another stone lying in position. Stones passing the back line, and lying clear of it, must be removed from the ice, as also any stone which in its progress shall touch the swept snow on either side of the rink.

NOTE. — Reference in forming rinks is made to the diagram or plan, called "The Rink." See page 158.

2. All matches to be of a certain number of heads, to be agreed on by the clubs, or fixed by the umpire, before commencement; or otherwise, by time, or shots, if mutually agreed on. In the event of parties being equal at the conclusion of the match, play shall be continued by all the rinks engaged for another head; or, if necessary to decide the match, for such additional heads as the umpire shall direct.

3. Every rink to be composed of four players a side, each using two stones. The rotation of play observed during the first head of match shall not be changed.

4. The skips opposing each other shall settle by lot, or in any other way they may agree upon, which party shall lead at the first head, after which the winning party shall do so.

5. All curling-stones shall be of a circular shape. No stone, including handle, shall be of a greater weight than 50 pounds imperial, or of greater circumference than 36 inches, or of less height than one-eighth part of its greatest circumference.

6. No stone shall be changed after a match has been begun, but the side of a stone may be changed at any time during a match.

7. Should a stone happen to be broken, the largest fragment shall be considered in the game for that end — the player being entitled to use another stone, or another pair, during the remainder of the game.

8. If a played stone rolls over, or stops, on its side or top, it shall be put off the ice. Should the handle quit the stone in delivery, the player must keep hold of it, or otherwise he shall not be entitled to replay the shot.

9. Players, during the course of each end, to be arranged along the sides, but well off the rink, as the skips may direct; and no party, except when sweeping according to rule, shall go upon the middle of the rink, or cross it, under any pretence whatever. Skips alone to stand within the 7 foot circle — the skip of the playing party to have the choice of place, and not to be obstructed by the other, in front of the tee, while behind it the privileges of both in regard to sweeping shall be equal.

10. Every player to be ready to play when his turn comes, and not to take more than a reasonable time to play. Should he play a wrong stone, any of the players may stop it while running; but if not stopped until at rest, the stone which ought to have been played shall be placed in its stead, to the satisfaction of the opposing skip.

11. If a player should play out of turn, the stone so played may be stopped in its progress, and returned to the player. Should the mistake not be discovered till the stone be at rest, or has struck another stone, the opposite skip shall have the option of adding one to his score, allowing the game

to proceed, or of declaring the end null and void. But if a stone be played before the mistake has been discovered, the head must be finished as if it had been properly played from the beginning.

12. The sweeping shall be under the direction and control of the skips. The player's party may sweep the ice from the middle line to the tee, and any of their own stones when set in motion, — the adverse party having liberty only to sweep in front of any of their own stones which have been set in motion by a stone played by the opposite party. Both skips have equal right to clean and sweep the ice behind the tee at any time, even when a player is being directed by his skip. At the end of any head, either of the skips may call upon the whole players to clean and sweep the entire rink, but being subject to this, if objected to, to the control of the acting umpire. The sweeping shall always be to a side; and no sweeping shall be either moved forward or left in front of a running stone. When snow is falling, the player's party may sweep the stones of their own side from tee to tee.

13. If, in sweeping or otherwise, a *running* stone be marred by any of the party to which it belongs, it may, in the option of the opposite skip, be put off the ice; but if by any of the adverse party, it may be placed where the skip of the party to which it belongs shall direct. If marred by any other means, the player shall replay the stone. Should any played stone be displaced before the head is reckoned, it shall be placed as near as possible where it lay, to the satisfaction of, or by, the skip opposed to the party displacing. If displaced by any neutral party, both skips to agree upon the position to which it is to be returned; but should they not agree, the umpire is to decide.

14. No measuring of shots allowable previous to the termination of the end. Disputed shots to be determined by the skips; or, if they disagree, by the umpire; or, when there is no umpire, by some neutral person chosen by the skips. All measurements to be taken from the centre of the tee to that part of the stone which is nearest it.

15. Skips shall have the exclusive regulation and direction of the game for their respective parties, and may play last stone, or in any part of the game they please, but are not entitled to change their position when once fixed. When their turn to play comes, they may name one of their party to act as skip for them, and must take the position of an ordinary player, and shall not have any choice or direction in the game till they return to the tee head as skips.

16. If any player engaged, or belonging to either of the competing clubs, shall speak to, taunt, or interrupt another, not being of his own party, while in the act of delivering his stone, one shot may be added to the score of the party so interrupted for each interruption, and the play proceed.

17. If from any change of weather after a match has been begun or from any other reasonable cause, one party shall desire to shorten the rink, or to change to another; and if the two skips cannot agree, the umpire shall, after seeing one end played, determine whether the rink shall be shortened, and how much, or whether it shall be changed, and his decision should be final. Should there be no acting umpire, or should he be otherwise engaged, the two skips may call in any neutral curler to decide, whose powers shall be equally extensive with those of the umpire. The umpire, moreover, shall, in the event of the ice being in his opinion dangerous, stop the match. He shall postpone it, even if begun,

when, in his opinion, the state of the ice is not fitted for testing the curling skill of the players; and except in very special circumstances, of which the umpire shall be judge, a match shall not proceed, or be continued, when a thaw has fairly set in or when snow is falling, and likely to continue during the match. Nor shall it be continued when such darkness comes on as prevents (in the opinion of the umpire) the played stones being well seen by players at the other end of the rink. In every case the match, when renewed, must be begun *de novo*.

— Rev. John Kerr.

THE CURLER WORD

If you'd be a curler keen,
Stand straight, look even,
Sole well, shoot straight, and sweep clean.

THE old curler's "word" is redolent with wisdom, and I shall take it for the text of my observations, merely using the liberty to alter the order of its emphatic clauses.

"Soop clean" is a primary maxim of this noble art. Nothing should be left to accident or brute force; and a particle of snow or a chip of broom may defeat the efforts of the most cautious and cunning hand. It grieves me to the heart to see a parcel of rough clowns or lubberly citizens set to work upon an ill-swept rink, and hammer away till the stones polish the ice and excavate a narrow track, on which they may calculate surely, as upon a railway, from tee to tee. I would condemn such fellows, every cold frosty morning, to lather their beards with snow, and shave them with a hand-saw, till they are inspired with a suitable disrelish for rough work. The first manifestation of skill and worthiness is to polish perfectly a broad and long rink, till every honest curler can see his joyous face reflected from its glassy surface — a face which then only he need not blush to behold.

"Foot sure" is a maxim of fundamental importance. If a man does not stand firmly, he can never play surely. But

it is enough that the right foot be firmly planted upon the ice; the left foot, protected by the carpet shoe, should be kept free, that the player may throw his weight, when necessary, into his shot, and step forward when delivering his stone. In all the high districts most celebrated for prowess in the art, the latter practice prevails; and it is only in the lower and less favored parts of the country, where the inhabitants are timorous and enervated by luxury, that you find curlers fixed like automatons upon a broad sheet of iron with a cross-bar of wood at one end to keep them from slipping back, and a similar beam at the other end to keep them from slipping forward. Such players always appear to me to have come out to practise for standing in the stocks, to which I would send them at once, as the due reward of their folly. The thin iron plate, with one fillet of wood behind to retain the right foot, is a legitimate substitute for the genuine old "hag in the ice," and perhaps necessary in latitudes where the ice is seldom thick enough to admit of its being hacked. But the cross-beam for the fore foot is a stumbling-block and a snare, and will be discarded from every community pretending to light and civilization.

"Look at the mark with all your een." — When a player is observed to look at his feet, and then at the ice, and then at his stone, he ought to be ordered off at once, to undergo extra drill with the awkward squad.

"Shoot straight." — I place this maxim last, because it needs some elucidation; and as I feel that I am now about to tread on slippery ground, I desire to win my way with much caution to the tee. To shoot straight implies that the stone be launched from the hand "without any rotatory

motion," and that it be directly aimed at its mark. No man can be a good curler who has not learned to maintain these two conditions of straightness. The primary object always is to shoot straight at the mark; and when this is possible, no other track should be singled out. But whenever a stone, in leaving the hand, is made to revolve on its own axis, on keen ice, it will not move in a straight line to the mark, but will proceed in a curve, deflecting to the right hand or the left, according to the twist which has been communicated to it when set down. If the elbow is turned out in playing, the outside or natural twist takes place; and if the elbow is turned in, the inside twist is the result. There are few players who can avoid twisting their stone; and this almost universal fault is the great cause of the ill success which attends their play. It is a fault, moreover, of the effects of which inexperienced curlers are generally unconscious; and I have seen large parties of curlers twirling their stones to the left hand, and complaining, with one voice, of the heavy bias on the ice, when the ice was perfectly level, and the disappointment of the players was to be ascribed solely to the rotary motion of their stones. To guard against the habit of twisting is the first lesson to be learned by the young aspirant; and he who has learned to play a straight stone has already overcome one of the greatest difficulties of the art; for in ordinary circumstances, this is the style of play which will tell most of the success of the game.

— Timothy Twist.

THE SKIP

The direction of the game in curling lies, as we have stated, with the skip. The rink consists of four, and while three are under authority, one — the skip — is absolutely dictator. The skip is the general; they are the soldiers under him, and are bound implicitly to obey his commands. "Theirs not to reason why." Obedience is the first and last necessity in a rink of curlers. Where each thinks he knows more about the game than his neighbors, or even his skip, there is confusion and strife, and every likelihood of losing the match. Nowhere more truly than in a curling match does the maxim hold — "Unity is strength." The player has not, as in the point game, to try how much he can outdistance others in his score. The battle rages round the tee. Four against four contend for its possession, who first to take it, who last to hold it. Each has his place to fill. The first player, with a pair of heavy stones, must draw up toward the coveted spot. The second must protect the lead if the enemy has not dislodged him. The third most likely will have a brittle, *i.e.* an angular wick or cannon-shot shot to play. By that tee, watching and directing, stands the skip. He knows what is wanted. He knows what part each has to perform. He gives his orders accordingly, and expects them to be obeyed. The office is one of honor and of responsibility. The skip,

albeit a dictator, is appointed to his office by the will of his brother curlers. The essential qualification in their eyes is that he have a thorough knowledge of the game. Besides this knowledge of the game, there are many other qualities which a man must possess if he would worthily fill the office of skip. He must be a man of humor, delighting in "quips, cranks, and jollities." With a couple of sour skips at the end of a rink all the life goes out of the game. On the ice and at the social board it is required that a skip should be able to keep the fun going, to make a good joke, to tell a good story, to sing a good song, and although there has been no legislation on the subject of his attitude toward alcohol, it is more usual for him to be a disciple of Dr. Mortimer Granville than a follower of Sir Wilfrid Lawson. He must be a man of imperturbable temper, never put out when a mishap occurs, never angry at his men, never blaming anybody but himself, in the hour of defeat unmurmuring, and in the hour of triumph generous. He must be just, honest, wise, cool, prudent, watchful, brave, courageous, blameless as a bishop, and, like a bishop, the husband of one wife. Such are some of the qualities which are needed in one who would be "king o' the core." One other qualification we must refer to before we have done with him. He must be a man who can issue his orders in "guid braid Scotch," and who understands without the aid of a dictionary every word and phrase of the native Doric.

We may now finish our practical part of the subject by exhibiting a skip in action, directing the game in the language in which it is generally done. His first player being on the crampit, he does not give him any information as to what he wants him to do, but simply plants his besom-

shank upon the tee. "Ye ken what 's wantit." "Oh! be cannie." "Cannily down the howe ice." "Jist smell the ring an' I 'll no blame ye." He is a good skip who begins with caution and all through plays a cautious game. "A guid calm shot is aye the best." So the first stone comes "snoovin' up the howe." It does not quite reach the tee, and thus becomes a "perfect patlid"; it rests a foot or two in front of the tee, but it pleases the skip all the more, for "It 's in the way o' promotion." It is now the turn of the opposing skip to direct. Had the first stone rested on the tee he would have called for its removal, but with caution he would have said, "Draw to the face of this." "Just wittyr high, and no more." He asks for "a quiet draw." Too much force, and if he missed, he is owre a' ice, too little and he places the first stone on the tee and himself lies a guard to the enemy. So he leaves that stone alone and with "a quiet draw" he gets his stone beside it, none the worse that its line of promotion is not the direct line to the tee, for "a sidelin shot" may prove better than a patlid in the end. To get his stone promoted and guarded is now skip No. 1's aim. So "Jist crack an egg on this" is his direction; but the player has been too timid, and the stone lags on its journey, so the skip calls for the help of the sweepers. "Gie him heels, gie him heels!" "Soop him up, soop him up!" and by the aid of elbow-grease the desired work is done; his stone is on the tee and guarded. "Weel soopit, lads." "Come up, Sandy, an' look at it." "Take yersel' by the han'." "I 'se gie ye a snuff for that." These and suchlike are the expressions of the skip's satisfaction. "Rub off the guard, but dinna throw away your stone" is now skip No. 2's direction. But it is a raging shot, and

Photograph by Underwood & Underwood, New York

THE CURLERS

missing the guard it is through the "brough" like Jehu and awa' to the "caff-neuk." Skip No. 1 is jubilant, he is "shot and guarded." "Big on." "Pile on the agony," he cries, as his second player comes forward, and this is his demand for a double guard. "Owre the hog and you 're a great one." There! "That 's anither mote i' their ee." "That 's a seed in their teeth," and with a self-satisfied smile skip No. 1 steps aside to see how skip No. 2, with his second player, will deal with the situation. Two courses at least are open. He can curl round the guards and find the winner, or by an outwick on his first player's stone he can force that upon the winner and leave it shot. Then all the guarding of No. 1 is in his favor, and No. 1 is crestfallen. So the game proceeds. "New efforts, new schemes, every movement demands." The whole situation may alter in a moment, for it is a slippery game. The skip must be thoroughly alive; he must take in the position at a glance; his treasury of resources must be inexhaustible, and so must his treasury of words and phrases. The point-game gives only a selection of the movements which take place as the battle is fought around the tee.

Here is a selection of skip speech suited to these and other situations which may be heard any day in the progress of a bonspiel.

"A canny draw." "Tee-high weight and no more." "Oh, be cannie." "Jist come creepin' up." "Come to the door o' the hoose."

"O for a guard!" "Owre the colly and ye 're a great shot." "Lie back." "Guard the winner." "Dinna let him see that again." "Wait on him, men." "Watch that ane." "Keep him sweet." "Kittle him weel." "Block

the ice." "Fill the port." "Come creepin' doun to the back o' this ane." "Lift him an ell and lie yoursel'." "Lie in the bosom o' the winner." "An inwick aff this and ye 're shot yersel'." "Curl in to your grannie's wing." "Dinna flee the guard." "Break up the guards." "Through the port and ye 'll find the winner." "Let him die." "Ne'er a kowe." "Besoms up!" "See him through." "He 's a collie, tak' him by the neck."

There are many other points which, as the game proceeds, demand attention. A double wick may have to be made, or the curler may have to chuckle — *i.e.* "to make a succession of inwicks up a port to a certain object." At times he must simply come up in desperation to the skip's cry, "A' the pouther i' the horn," run out some stone with a bullet shot, straight and sure.

Rebutting (says Sir Richard Broun) is towards the end of the game when the ice is blocked up, and the aspect of the game hopeless or desperate, to run the gauntlet through the same. The effect produced by a stone driven furiously among double and treble guards is often truly surprising.

And the same writer thus describes another desperate movement: —

Cannoning, when the game has become complex, and the shot difficult to be taken in any other way, is the combined operation of making a guard butt off the winner, and follow in with your own stone — thus turning an instrument of defence into one of offence: viz. by striking it in such a position as that the guard shall take the winner at a slight angle, and so cause both to spin out, whilst the stone projecting these movements shall follow up and remain the shot. This, which is nearly, in billiard terms, walking a

cannon, requires less dexterity than strength, and is very often effective play, for only strike strong enough, and fifty times to one the guard driven will not hit so dead upon the winner as merely to take its place — the smallest possible variations from the direct causing it to diverge. "Come away, my boy! Don't spare the powder!" is always a jocose direction, exciting interest on both sides, and often from the opposite end of the rink have we seen the sole of our president's stone over his head when he had to lift up double guards, or take a shot (a favorite one with him) of this description, and been delighted with the consternation of the adversary, as —

> With full force, careering furious on,
> Rattling it struck aside both friend and foe,
> Maintained its course and took the victor's place.

On such "high-fated" blows victory or defeat in a curling match very often depends. It is in these final decisive moments that the skill, coolness, and courage of the skip are put to the test. The excitement is intense. A stillness as of death prevails when the fate of war depends on that last stone which the veteran warrior is about to deliver. He plays it; with breathless anxiety every one watches its career. He has it. He wins the match. The besoms are flung high in air. Loud shout the victors. Then all leave the rink and gather round the social board, where they fight their battles over again. The hero of the hour is toasted, and for generations to come his fame as a curler will be remembered in the parish or the club which he has exalted to honor by his marvellous deed.

— Rev. John Kerr.

In the Badminton Library, published by Longmans, Green & Co.

THE JOLLY CURLERS

Of a' the games that e'er I saw,
Man, callant, laddie, birkie, wean,
The dearest far aboon them a',
Was aye the witching channel stane.

Chorus

O! for the channel-stane!
The fell-gued game, the channel-stane!
There's ne'er a game that e'er I saw
Can match auld Scotland's channel-stane.

I've been at bridals unco glad,
Wi' courtin' lasses wondrous fain,
But what is a' the fun I've had,
Compare it wi' the channel-stane?
O! for, etc.

I've played at quoiting in my day,
And may be I may do 't again,
But still unto myself I'd say,
This is *no* the channel-stane.
O! for, etc.

Were I a sprite in yonder sky,
  Never to come back again,
I'd sweep the moon and starlets by,
  And beat them at the channel-stane.
    O! for, etc.

We'd boom across the milky way,
  One tee should be the Northern Wain,
Another, bright Orion's ray,
  A comet for a channel-stane.
    O! for, etc.

— James Hogg.

THE HUMORS OF CURLING

CURLING is a serious game, but it is nothing if it is not humorous. The curling season has been called "the Saturnalia of Scottish life." As if the ordinary humdrum arrangement of the elements were too monotonous a business, nature herself takes a humorous turn. On river and loch she builds "crystal brigs," hangs icicles on the eaves, turns the raindrops into hail and the vapor into snow, stops the plough in the furrow, takes the feet from the horses, and plays pranks with John Frost over hill and dale. It is she that is mainly responsible for curling humor. The conditions are favorable: crisp, exhilarating air, picturesque landscape, the slipperiness of the board, the enthusiasm of the players, the glorious uncertainties of the game, all combine to make that atmosphere of humor in which curling lives, moves, and has its being. Now, it is impossible to bottle up this atmosphere and carry it away. It cannot be transferred to the pages of a book. Golf and curling are in this respect alike, and by a change of two words Mr. Balfour's remark on the former is applicable to the latter game. "The humors of curling can be but very imperfectly exhibited in description or illustrated by anecdote. . . . It is only on the *ice* that these humors can be studied: it is only by those who are familiar with the game that they can be appreciated." We, therefore, attempt no analysis

of the humorous in curling, and only try to outline very imperfectly some of its phases. It is found hidden in the very words of the players. A stone on the tee is a *patlid*, one on each side and the tee is a *fire*. A ridge along the ice is a *sow's back*, a lazy stone which grunts and settles down too soon is a *hog*, a stone which once down remains in spite of all attempts to move it is a clockin-hen. And so on. In the phrases, too, it is the same. Both poetry and humor are blended in the flow of metaphor which connects the beginning with the end of the game, and the game of to-day with that of centuries ago. Scottish metaphor, let us call it, for the humor of it is so distinctly Scottish that Sydney Smith could not possibly see it. The humor is of the *dry* quality, and no *extra sec* of Mumm or Heidsieck is half so delightful as it is to watch a pawky, cannie, old skip manœuvring a game of curling. "Come cannilie creepin' doun." "Eh, man, ye 're no up, but I like to see you hoggin'." "As guid 's a better." These two last are really rebukes, but the humor takes the sting out of them. When the stone goes raging over the tee and away to limbo the same gentle art covers the error with the remark "it was ance shot." "Wha said ye couldna curl?" is his way of paying the highest compliment. He clothes his direction to remove the enemy with humor by saying — "Jist gie this a wee bit cuff on the cheek," and he converts the blunder of removing the wrong stone into innocence by the remark, "Ye 've waukened the wrang man." With playful allusion to the profession of each player, the fun of the game is carried on. From the tailor he asks attention to a fine "pair o' breeks"; the doctor is requested to "repeat the dose"; the lawyer is to serve "decreet of removal" on one stone, and another he must

take to *avisandum*. In the minister's case the stone, like the sermon, is "weel delivered," and if a scriptural allusion is not out of place, 'tis "a rale Ebenezer — a stane o' help." When the self-satisfied grave digger calls out to the skip, "I think that ane 'll lie," there is a bit of quiet grim wit in the response "Aye, aye, man, nae fear o' that; they a' lie that ye pit doun."

That *equality* which is one of the features of curling, and under which the humblest workman, by reason of his superior skill, is entitled to rule and direct the man of highest rank, is accountable for some of the humorous in curling. "Cats dinna catch mice wi' mits on" is the horny-handed son of toil's hint to the gentleman to take off his gloves. A worthy sheriff was one day playing to the direction of a stone-mason, whom he had sent to prison more than once for poaching, but to whom the sheriff had to look up when it came to curling: "Noo, Shirra," said the poacher-skip, "dae ye see that stone?" "Aye, Jock," answered the Sheriff. "A' weel, Shirra," says Jock, pointing to the stone with his kowe, "just gie that ane sixty days." "Fit your tee and play to direction, an' we 'll sune make ye a man and a curler," was the greeting of a corduroy skip to a scion of nobility who for the first time stepped upon the crampit. Lord Balfour, at the Jubilee dinner of the Royal Club, referring to the equality of the rink, said he had heard of it "being very amusingly illustrated one day in a railway carriage in which a party were travelling the somewhat tedious journey to Carsebreak. One individual in the carriage had bought a morning paper, and while reading it turned to a friend seated in the other corner of the compartment and said, 'Eh, Geordie, I see you are drawn agin a lord the day.'

Geordie did not say much in reply, but looking around he quietly remarked, 'Weel, maybe I'll be the lord afore nicht.'" More than once the Earl of Eglinton, that keen sportsman, figures in anecdotes of this kind. One must suffice. The Earl was one day called upon as skip to play out the leading-stone of his opponent. For a time the course of his stone promised success, but in the end it passed by, leaving the winner untouched. His third stone, Hugh Conn, watching in great excitement the approach of the gay-crested, silver-handled charger, was heard ejaculating at the various stages of its progress, "Bravo, my Lord! Bravo, my Lord!! Bravo, my Lord!!! Oh, Lord, I declare ye wad miss a haystack." The clergy generally are great supporters of curling, and many of them are adepts in the art. A young Ayrshire minister, having one day in a match surprised everybody by a shot which required great strength, was saluted thus by a weaver, "My certy, you 're a bonny man to mak' a minister o'." More than once a minister's curling capabilities have helped him in his candidature for a parish, and his people esteem him all the more when he can make a good appearance on the ice. They would rather have "cauld kail het again," *i.e.* an old sermon on Sunday, than lose his presence, as is evidenced in the story of the Cupar curlers whose minister had been discoursing on the faults and fate of Judas several Sundays before the frost came, and who wished to leave the Saturday evening festivities after the first day's curling. "Na, na, doctor," said they all, "ye mauna gang awa' and leave us this way for sake o' the sermon. Jist gie Judas anither wallop i' the tow." No doubt it was a stormy day, and the few who were present were curlers, but perhaps the past

week's play had also to do with it, when, after the "preliminaries" the Rev. Mr. Torrance one Sunday brought the service in Glencorse church to a close with this intimation: "My friends, as the day is stormy, and there may be a danger of some of you being the worse for sitting in this cold church, I shall not detain you by preaching the sermon, but shall now dismiss the congregation; and, remember, we all meet on the ice to-morrow at eleven o'clock." The late Dr. Aiton of Dolphinton is said to have summed up a funeral sermon on one of his elders, who was a keen curler, in the following way: "And now, my friends, he is over the hog-score, he is within the inner circle of eternity, and dead-guarded." An Episcopal minister in the north was one day telling to his Established brother, whom he met on the ice, his grief at finding that a candidate whom he had been preparing for confirmation had gone over to Rome. The auld Kirk brother's apt and only consolation was this: "You 've soopit him past the tee." When his pastor went through the ice one day, a callous parishioner remarked, "The minister 's in for a guid steepin [stipend] noo." Our glimpses of the clerical aspects of curling humor may close with the following: "The Rev. Dr. Cook of Bathgate, than whom no minister more faithfully led his people on the right way, one day played a stone which, instead of good, did much harm. 'What have I done, John?' called out the doctor, as he saw his skip's agonizing contortions of countenance. 'Done, doctor, what have ye no' done? Ye've sent us a' to [the deil] thegither.' . . ."

Curlers are generally good husbands, and all the better for their curling. It has an excellent effect on the temper; it clears the brain and warms the heart, and so the ladies

give it their countenance and encourage it in many ways. A wife has been known more than once to carry or wheel her husband's channel-stanes to a pond miles distant, when he was unable to do so himself, although able to play when he reached the ice. But the *tume aumbrie* has, on the other hand, caused many a poor woman to lament her guidman's devotion to the roaring game, and the wife of the Lochwinnoch wabster who, à la Dame Scott of Harden and the dish of spurs, drew from the steaming pot a boiled curling-stone, and placed it before her husband for his supper in presence of his starving children, no doubt served him right. An Ayrshire blacksmith has the credit of cleverly outwitting his better half, and getting a fortnight's curling, without such a Barmecide feast, by making a piece of cast iron red-hot, and when the guidwife came forward to "gie him a chap with the forehammer," as she sometimes did, the hissing bar "flew into flinders" at the blow. "Do ye no see, Jean," said the blacksmith, "that the frost has sic an effect on the metal that it breaks to bits when we begin to work it?" The guidwife was satisfied.

The keenness of Dannie F——, a Lanarkshire curler, and a late sederunt after the play, was punished rather amusingly by his wife, without any intention of the kind on her part. She had, in Dannie's absence, given the jambs a rich coat of tar to improve their appearance, and when Dannie slipped quietly home with a reef or two in the wind, he settled down to have a "draw" before going to bed, with his back against one of the said jambs, and soon fell sound asleep. "Come to your bed at once, Dannie," called out his guidwife, as she woke after midnight, and found her husband sleeping at the fireside. "Come awa' to your bed, ye

auld cuif, an' no' lie snoring there." Dannie made a desperate effort to get up, but found it was quite impossible, for he was firmly glued to the newly tarred fireside. "Preserve us a', Janet," he exclaimed, "this maun really be an awfu' frost. I doot there 'll be news o' this yet. I declare to guidness if I 'm no' frozen to the very jamb."

— Rev. John Kerr.

Badminton Library, Longmans, Green, & Co.

THE POINT GAME

THE ordinary game of curling is played rink against rink, each rink consisting of four players, and each player using two stones. It is as these players seek to lay their own stones nearest the tee, and to strike out the stones of their opponents, that the various points of the game emerge. The number of points arising in a game is simply endless. No two heads or ends are exactly the same. Like Cleopatra's charms, custom cannot stale their infinite variety. To practise all the points in a single-handed competition is therefore impossible. In the regulations drawn up by the Royal Club for this point game, for which local medals are given, eight points are selected, a ninth, outwicking, being played only to decide a tie. These rules, and the various diagrams with the explanation of each of the nine points, are now introduced, and may be recommended for study.

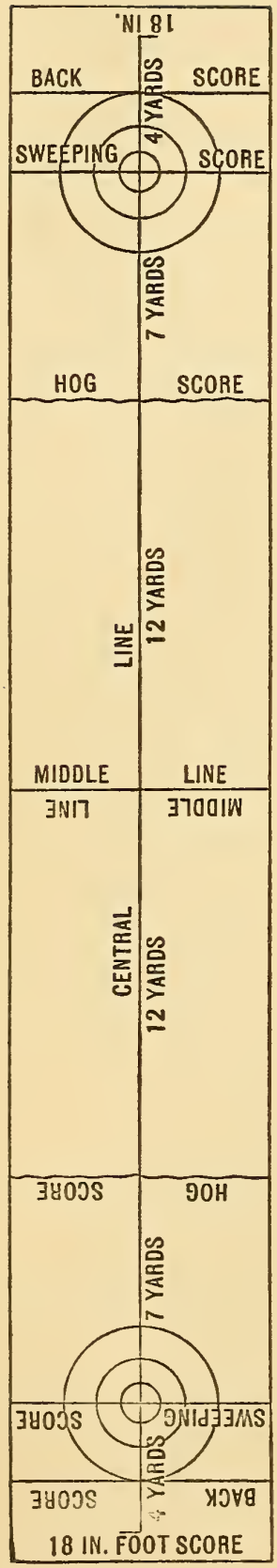
RULES FOR POINT COMPETITIO [1]

1. Competitors shall draw lots for the rotation of play, and shall use two stones.

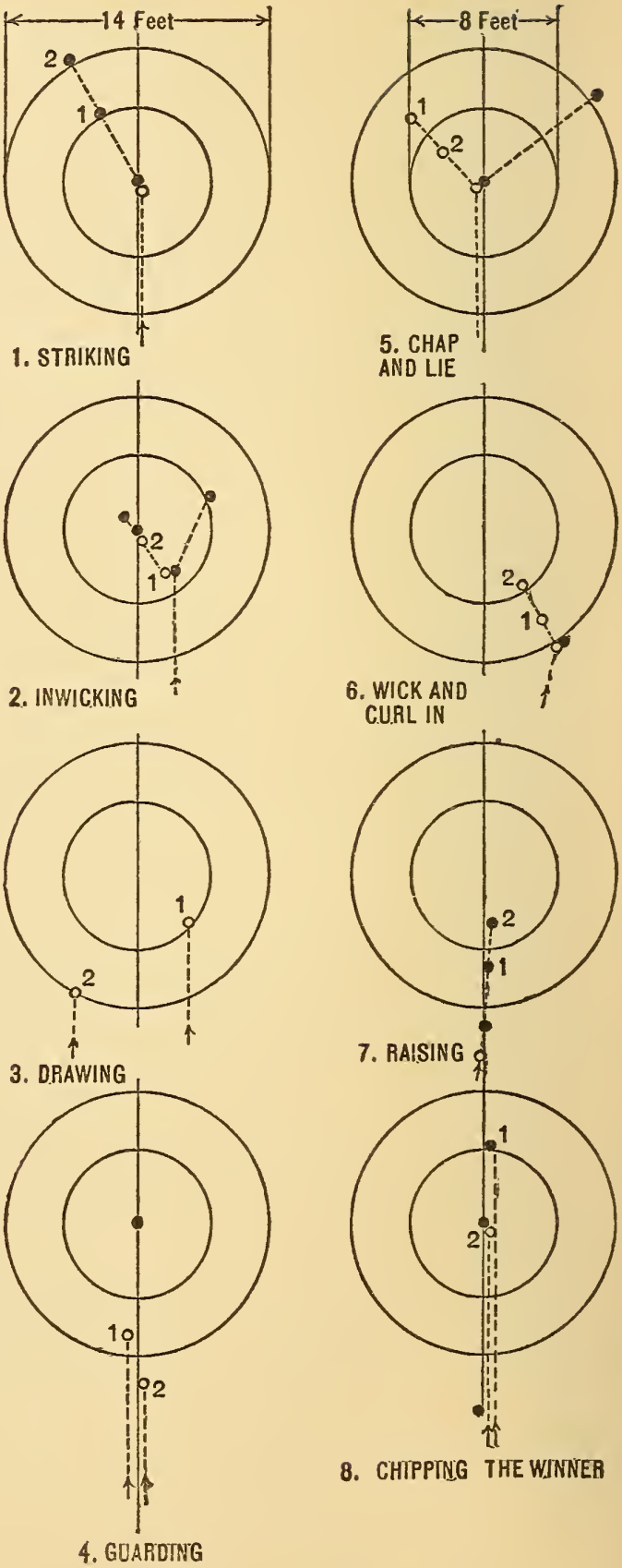
2. The length of the rink shall not exceed 42 yards; any lesser distance shall be determined by the umpire.

3. Circles of 7 feet and 4 feet radius shall be drawn round

[1] These rules and definitions are applicable only to competitions for the medals given by the Royal Club, and are not intended to supersede any regulations made by local clubs in competing for their own private medals.



THE CURLING RINK



POINTS IN COMPETITION PLAY

the tee, and a central line through the centre of the 4-foot circle to the hog-score.

4. Every competitor shall play four shots at each of the eight following points of the game; viz. striking, inwicking, drawing, guarding, chap and lie, wick and curl in, raising, and chipping the winner, according to the following definitions. (See below and the preceding diagram.)

5. In Nos. 2, 6, 8, and 9, each competitor shall have two chances on the left and two on the right.

6. No stone shall be considered without a circle unless it is entirely clear of that circle. In every case a square is to be placed on the ice to ascertain when a stone is without a circle, or entirely clear of a line.

Definition of Points[1]

1. *Striking.* — A Stone placed on the Tee. If struck, to count 1; if struck out of the 7-foot circle, to count 2.

2. *Inwicking.* — A Stone being placed on the Tee, and another with its inner edge 2 feet 6 inches from the Tee, and its fore edge on a line drawn from the Tee at an angle of 45° with the central line.

If the played Stone strike the latter on the inside, to count 1; if it perceptibly move both Stones, to count 2.

[1] It will save much time if, in playing for local medals, two rinks be prepared lying parallel to each other, the tee of the one being at the reverse end of the other rink; every competitor plays both stones up the one rink, and immediately afterwards both down the other, finishing thus at each round all his chances at that point.

It will also save time if a code of signals be arranged between the marker and the players, such as, the marker to raise one hand when 1 is scored and both hands when 2 are scored. In the case of a miss hands to be kept down.

3. *Drawing.* — If the Stone played lies within or on the 7-foot circle, to count 1; if within or on the 4-foot circle, to count 2.

4. *Guarding.* — A Stone placed on the Tee. If the Stone played rests within 6 inches of the central line, to count 1; if on the line, to count 2. It shall be over the Hog, but not touch the Stone to be guarded.

5. *Chap and Lie.* — If a Stone placed on the Tee be struck out of the 7-foot circle, and the played Stone lie within or on the same circle, to count 1; if struck out of 7-foot circle, and the played Stone lies within or on the 4-foot circle, to count 2.

6. *Wick and Curl In.* — A Stone being placed with its inner edge 7 feet distant from the Tee, and its fore edge on a line making an angle of 45° with the central line.

If the Stone is struck, and the played Stone curls on or within the 7-foot circle, to count 1; if struck, and the played Stone curls on or within the 4-foot circle, to count 2.

7. *Raising.* — A Stone placed with its centre on the central line and its inner edge 8 feet distant from the Tee.

If struck into or on the 7-foot circle, to count 1; if struck into or on the 4-foot circle, to count 2.

8. *Chipping the Winner.* — A Stone being placed on the Tee, and another with its inner edge 10 feet distant, just touching the central line, and half guarding the one on the Tee, and a third Stone being placed 4 feet behind the Tee, with its inner edge touching the central line, but on the opposite side from that on which the guard is placed.

If the played Stone strikes the Stone placed behind the Tee, to count 1; if it strikes the Stone on the Tee, to count 2.

9. *Outwicking.* — In the event of two or more competitors gaining the same number of shots, they shall play four shots at Outwicking; that is, a Stone being placed with its inner edge 7 feet distant from the Tee, and its centre on a line making an angle of 45° with the central line.

If struck within or on the 7-foot circle, to count 1; if struck within or on the 4-foot circle, to count 2.

If the competition cannot be decided by these shots, the umpire shall order one or more of the preceding points to be played again by the competitors who are equal.

It must be understood that proficiency in this single-handed play does not necessarily imply skill in the whole art of curling. Sometimes an indifferent player has won the point medal. On the other hand, many curlers of reputation at the all-round game, such as the late Admiral Maitland Dougal of Scotscraig, have year after year gained distinction at points. This kind of play is to regular curling what anatomy is to the practice of surgery — a study of the bones preparatory to handling the living subject. It is therefore worthy of attention. One good purpose it certainly serves. It teaches modesty. Few try it whose misses are not twice the number of their hits. . . .

In Canada, where the ice was often "run" or "cooked" by having been long played on, some startlingly high scores were sometimes made. To make a fair comparison possible, it was enacted that the point game should always be played on new or virgin ice, and that each of the four shots should follow a fresh path.

Our Canadian brethren, in their point competition, have one point additional to the nine which have been described. It is thus defined in the Annual of the Manitoba Branch: —

Drawing through a Port.—One Stone to be placed with its inner edge on the central line, 10 feet in front of the Tee, and another Stone placed parallel thereto, and with its inner edge 2 feet from the central line; if the played Stone passes between these two Stones without touching either, and rests within or on the 14-foot circle, to count 1; if within or on the 8-foot circle, to count 2.

No better point than this can be practised. It is one of the most useful as it is one of the most difficult, and its speedy adoption at home would greatly heighten the value of the preliminary practice of the point game.

— Rev. John Kerr.

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A CURLER'S ELEGY

When Winter muffles up his cloak,
And binds the mire like a rock;
When to the lochs the curlers flock
  Wi' gleesome speed,
Wha will they station at the *cock?*
  Tam Samson 's dead!

He was the king of a' the core,
To guard, or draw, or wick a bore,
Or up the rink like Jehu roar,
  In time o' need;
But now he lags on Death's *hog-score.*
  Tam Samson 's dead!

— Robert Burns.

SNOW-SHOEING

THE KEY TO THE WINTER FOREST

A WRITER of deep suggestiveness has commented on the superior advantages of the man on horseback over the man on foot; but this exalted condition, which in certain seasons gives one a delicious sense of sovereignty, affords neither advantage nor charm in the northern climate in midwinter. The man to whom all things are possible under these circumstances is the man on snow-shoes. He alone holds the key of the snow-beleaguered forests; to him alone is intrusted the right of eminent domain, — the privilege, in other words, of seizing for his own use the lands of his neighbors; he alone owns the landscape. Great privileges never go save in company with grave responsibilities, and not unfrequently with serious perils. No one need expect, therefore, to be put into possession of the landscape except upon conditions more or less formidable. The snow-shoe is a delightful feature of decoration; how often have we seen it effectively displayed against a proper background, and straightway, as if a door had been set ajar into another clime, the breath of winter has been upon us, the splendor of illimitable fields of snow has blinded us, and we have seen in a glance the dark line of spruce and fir as it climbs the white peak against the deep blue horizon line. But the snow-shoe has its serious and even humiliating aspects. The novice who ties it on his moc-

casin and goes forth for the first time in rash and exulting confidence is likely to meet with swift and calamitous eclipse.

He mounts the first inviting drift of beautiful snow, only to disappear in a humiliation and perplexity from which he emerges blinded, breathless, and whiter than the polar bear. The unsympathetic jeers of his companions complete the discipline and stimulate to further catastrophes, which in the end work out the peaceful results of wisdom and training. But the secret once learned, snow-shoeing is thenceforth a measureless delight. . . .

On a summer's day the spacious leisure of the forest invites one to complete cessation of effort; to that profound repose which sets every door ajar for fresh perceptions and new influences. But on a clear, cold winter's morning a very different spirit is abroad; not repose, but intensity of action, is solicited. There lies the great world from which the traces of individual ownership have been almost obliterated. Who will claim it, and enforce his claim with absolute possession? It is in response to this inspiring challenge that the man on snow-shoes enters the field. If he is made of the right stuff, he has the air of a great proprietor. To him roads and fences and all artificial boundary lines are as if they were not; he owns the landscape, and there are moments when he feels as if the sky had been hung above his wide free world to give him the last and most delicate sensation of adventure. The great joy of the man on snow-shoes is the consciousness of freedom. He is released from the tyranny of the roads and the impertinent intrusion of fences; places that were once forbidden or inaccessible are now open to him; fields given over to the selfishness of agriculture are leased to nature for the nobler

uses of beauty and his personal adventure; there is no secluded pond in the woods to which he cannot choose his own path; there is no remote outlook across field or swamp to which he cannot swiftly make his way. . . .

The remoteness, the silence, and the solitude of the winter woods are simply enchanting; the sky is softly blue between the "bare ruined choirs where late the sweet birds sang"; every twig is snow-bound, and the only evidence of life is the track of the rabbit or the fox. One tramps on, jubilant and self-forgetful, until suddenly some unseen root catches in the mesh of the snow-shoe, and then alas for human greatness! But the disaster is only momentary — is, indeed, part of the novel and fascinating experience. On and on through the deep recesses of the forest one makes his way, and at every turn some lovely or impressive wintry scene frames itself for permanent hanging in the memory. Now it is a little snow-covered hollow, where one is sure the mosses grow thick in summer; now it is a solitary tree whose tracery of branches is exquisitely etched against the sky; now it is a side-hill swiftly descending to the narrow brook, the music of whose running still lingers softly cadenced in the ear of memory; now it is a sudden glimpse of the mountains that rise in the wide silence and solitude like primeval altars whose lofty fires are lighted at sunrise and sunset; and now, as one leaves the forest behind, the last picture is the river winding through the dark, wild mountain gorge, its waters rushing impatient and tumultuous over the ice that strives in vain to fetter them.

— Hamilton Wright Mabie.

From *My Study Fire.*
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A SNOW-SHOE RUN

"ALL the world 's before them where to choose," but the individual choice in that Indian file of snow-shoers tramping the country-side is subject to the will of the leader appointed for the occasion. No one must pass in front of him, fall out of line or drop behind the "whipper-in." The sport often involves a struggle with the wind or blinding snow, in which the chances are good for getting lost and marching many more miles than were intended.

By February Quebec fences are decently buried in successive snowfalls, but at Christmas time they are still in evidence. The rail variety is easily managed. The tramper simply throws himself upon his chest along the top and swings his shoes over. Barbed-wire and spike-topped fences are harder to cross. Sometimes it is necessary for one in the line to go down upon his hands and knees while the others jump over the barrier from the top of his back. At each icy hilltop the snow-shoer crosses the points of his shoes behind and sits down upon them to coast the slope. On the other hand, if the snow is too soft upon a steep descent, the shoes have to be taken off.

A snow-shoe club has either a country club-house of its own or a public rendezvous that can be made the objective point of a weekly tramp. There the members sing themselves hoarse and indulge in athletic games, — jambette,

Photograph by Underwood & Underwood, New York

A SNOW-SHOE RUN

pie crust, bouncing, tug-of-war, or cock-fighting — not with birds, but with human beings whose hands are tied to a broomstick under their knees. On "Ladies' Night" there is a dance or a card party at the club-house and a tramp home in couples, perhaps by romantic moonlight. If there is no moon, they carry torches, and the ruddy flickering light adds picturesqueness to the long belted blankets or tunics and tasselled tuques of the snow-shoe runners. The uniform of the Quebec Snow-shoe Club, organized more than thirty years ago, is a model combination of comfort and picturesqueness. It consists of a scarlet tuque with a black band and tassel; a white blanket coat piped with red, a black-and-red border; black epaulettes edged with red; capuchin lined with black; black knee-breeches, scarlet stockings, and sash. On the left breast of the coat is the club badge — a red-bordered white shield with a black letter "Q" in the centre. A pair or two of socks are worn below the long stockings, and over them the moccasins of elk or moose skin.[1]

A pretty picture it is, says W. Campbell, as the snow-shoers turn down into a gully, some slipping, some recovering from a threatened upset by a feat of balancing, and then, still in Indian file, getting over the fence, every man in his own peculiar way. Some take it at a leap, others climb it cautiously; some roll over sideways in a lump, pitching feet and snow-shoes before them. Some are too slowly careful, and, catching a shoe on the top rail, measure their full length in the snow. There is no stopping here, for we are far from road and railroad, out in the open country,

[1] The foregoing is quoted from an article by Jean N. McIlwraith, by permission of the publishers of *Country Life in America*.

with several miles of field before us, and twenty fences in the way. Most of the farmers, with fellow-feeling, have left a few rails down, so that there is no obstruction. But a tramp is as tame without a tumble as without a fence, so here goes for your five feet ten! Never was there charger could take a high fence like a snow-shoer! As an old song of the Montreal Snow-shoers' Club runs: —

"Men may talk of steam and railroads,
But too well our comrades know
We can beat the fastest engines
In a night tramp on the snow.

"They may puff, sir, they may blow, sir,
They may whistle, they may scream —
Gently dipping, lightly tipping,
Snow-shoes leave behind the steam!"

THE SNOW-SHOEING COSTUME

THERE is a distinct loss of the picturesque in the adoption of the close-fitting knitted sweater in place of the gayer characteristic costume of the early Canadian Snow-shoe Clubs. A Mackinaw blanket coat with a gay stripe of the Club's chosen color, with capuchin hood to match, and a knitted stocking cap to be worn either with dangling tassel or rolled into a tuque, gives fascinating color to a line of snow-shoers. But whether blanket or sweater be worn, thoroughly warm woollen underwear is a matter of course; with a sweater a light waterproof coat is useful to keep the coarse knitting from filling with damp snow; and the longest of knitted stockings should be put on as the lumbermen wear them, outside the trousers. The most comfortable way to keep the feet warm is to draw on over the woollen stockings at least one pair of well-fitting socks rolled over at the top so as to cover the upper edge of the moccasin and thus keep out the snow. Boots or stiff-soled shoes do not allow the foot-muscles free enough play; the only practical footgear is a pair of flexible moccasins which may cost anywhere from seventy-five cents to five dollars a pair. They may be made from elk or moose hide, but in sections where the snow is liable to become soft and wet it is well to secure those which have been oil-tanned and are at least approximately waterproof. At every stage of the

novice's outfitting he will find that wide differences of opinion exist as to what is most serviceable, and the wisest plan is to secure the advice of some one of experience who is thoroughly familiar with the country and climate in which the snow-shoes are to be used.

Broadly speaking, however, the snow-shoe's lines are the same as when one of the early travellers among the Indians of the lower provinces wrote: —

"The frames of their snow-shoes were of beech, of the thickness of those used in playing tennis, but longer and wider and of the same form without a handle. The length of each was the distance from the waist to the ground. They placed in them two pieces of wood which ran across at a distance from one another equal to the length of the foot. They were corded with mooseskin dressed to parchment. This was cut into very long cord, both thick and thin. The thick were placed in the middle part of the snow-shoe, where the foot rests between the two sticks; the thin were used at the two ends. Close against the stick in the front there was left an opening in the middle of the snow-shoe to admit the toe in walking. This was in order that the shoe might not rise behind, but do nothing but drag."

Modifications of this type there are to suit different conditions, and as the forests and the game supply have dwindled it has become more difficult to obtain certain preferred woods and skins; but the best skill of civilization has made no essential improvement in the work of the untutored savage. Only one radical change in even the materials used has been strongly advocated, and this has not yet been generally accepted. Mr. W. H. Harmon, described as "a snow runner of great experience," is quoted

as claiming that instead of rawhide webbing, wire picture cord, which he uses altogether, is strongest, lightest, and least affected by moisture.

In the making of a snow-shoe, a strip of white ash, birch, hickory, or tamarack, as the maker prefers or can obtain the wood, as free from knots or changes in grain as possible, is shaped by patient shaving to the necessary thinness. A shoe for rough bush running should be stronger than one made for speedy work upon a prepared course; such a racing shoe is frequently less than a quarter of an inch in thickness. This strip after thorough steaming — it can be done in an old wash-boiler — is carefully bent into the desired shape, a broad oval at one end tapering to the point made by lashing the ends of the strip together for a few inches; frequently the oval is not exactly symmetrical, for where a wide shoe is necessary on account of fresh light snows, the foot-space is not placed in the centre, but slightly nearer the inside edge in order to decrease the width of the tiring "straddle." Back and front cross-sticks are inserted, the frame is securely tied to prevent an alteration of shape during drying, and is hung away to season, sometimes for months. This most common shape, an oval curving up slightly in front and with a narrow, extending tail, is often referred to as the Iroquois pattern and may cost from three dollars up. Nowadays, owing to a scarcity of caribou or moosehide, the usual material for the laced web is cowhide for the broad-meshed centre, and calfskin in narrower strips for the fine meshes in front of the toe and behind the heel. The strips of rawhide are themselves the result of several days of work spent in soaking, stretching, twisting, and using any other discoverable means so to prepare the skin

that there is the least danger of its stretching under the strain of use and moisture. When fresh snow has fallen upon a stiff crust, it often happens that the shoe sinks into the soft surface snow and must be pulled free, with perhaps several pounds of snow upon it. If these leather strips, called *babiches*, have not been sufficiently well-stretched before the mesh is made, the result is a baggy shoe, which forces the wearer to lift his foot at every step an inch or more higher than he otherwise does, puts him in constant fear of tripping, and becomes an unsupportable nuisance.

The putting on of a snow-shoe is hardly a thing to be attempted by the inexperienced without personal instruction; and even among experts the best method of tying the thong so as to allow the greatest freedom consistent with security is an inexhaustible topic when swift and strong runners gather after a run in front of a blazing fire. A thong too tightly drawn is certain to bring on the cramp, the *mal du racquet*, dreaded by beginners, while the loss of a snow-shoe in midflight leads to a sad misuse of good old English words.

The commonest way is to have the snow-shoe fitted with a permanent toe-strap above the forward cross-stick. In the mesh between the cross-sticks, where the weight of the foot is to come, eyelets and an open space to allow the toes freer movement have been made in the coarse web in the making of the net. The wearer lays his long, thoroughly stretched thong in a loop slightly larger than his foot, passes the ends of the thong down through the eyelets and up again, one on each side of the toe-hole. Then he slips his toe under the strap and lifts the loop of the thong above his heel so that it forms a strap around the back and sides

of the foot which can be drawn taut by taking an end of the thong in each hand and pulling in the slack. The ends of the thong are next crossed over the instep, caught under the tightened sidebands with a half-hitch to prevent slipping, and finally brought around to the back of the heel and securely tied.

In both shape and size snow-shoes differ greatly, as has been said, according to the country over which they are to be used. The racing runner along a smooth crust may wear a narrow shoe less than four feet long. The hunting snow-shoe of the Crees is about six feet long; from the open country south of Hudson's Bay come specimens as long as eight feet. The Esquimaux, on the other hand, have two types, of which one is very nearly a triangle, about eighteen inches long, and the other is almost circular. The Montagnais in the French Canadian provinces have a short-tailed round variety known as the "frying-pan," while a small tailless shoe, called the "bear's paw," is a great favorite among rabbit hunters who need to be able to turn swiftly among stumps and stones. The lumbermen of Oregon and the far northwest use a shoe oval at each end, though not so much circular as egg-shaped in outline, with the same object of easily clearing obstructions.

Hans Gadow, in writing of his travels in northern Spain, mentions stopping for a gossip with villagers in a small "general store," such as is in those mountains so fitly called an "Arca de Noe" — Noah's Ark! and continues: —

"Besides much local information and gossip, they spoke of the great amount of snow which in the winter covers everything to the height of many feet, and in answer to my inquiry how they managed to get about in the deep snow,

they said that they then used their *barahones*. 'Very likely, but what are *barahones?*' '*Hombre, barahones*, for walking on the snow!' As this did not bring us nearer to an understanding, and as nobody knew how to enlighten my ignorance, Father Noah disappeared and came back with a veritable pair of snow-shoes. That was a discovery! Fancy snow-shoes in Spain, a country which we invariably associate with a broiling sun. The 'shoe' consists of two flat but curved pieces of wood, from twelve to fourteen inches long, joined together by two cross-bars, upon which the boot rests, the latter being fastened by leather thongs, as shown in the accompanying sketch. These snow-shoes have consequently nothing in common with the Norwegian *ski*, except that they present surface enough to prevent the wearer from sinking into the snow. When the latter is fresh and loose, they are probably useless. In spite of many inquiries in other villages, these shoes as well as their name were found to be unknown, and even when I showed our own sample, which Rafael had kindly made for us, the people did not understand its meaning. A curious instance of limited local distribution. A month later, in the Basque province of Alava, these things were understood, and were called *bore-ruelas* in Spanish, but ours were severely commented upon, because theirs are made of square pieces of wood. The priest at Riano quite agreed with me that *barahones* was not exactly a Spanish-sounding word, but with a shrug of his shoulders he asked what else such things could be called."

ON SNOW-SHOES IN THE NORTH WOODS

A NOVICE ON SNOW-SHOES

OBVIOUSLY, the most important preparation for a winter tramp in the North Woods was to learn to walk on snow-shoes. We had some misgivings as to the learning, misgivings carefully fostered by our more experienced friends. But we boldly tied on our shoes, and to our great surprise, walked off across the snow with ease if not with grace. A very short pilgrimage filled us with pride at our remarkable skill; but the proverbial fate of such arrogance arrived with rather more than its usual suddenness. A fall on snow-shoes has both advantages and disadvantages. It is practically impossible to hurt yourself in deep soft snow; but the problem of getting to your feet again is a complicated one, especially if one foot has slipped out of its toe-strap, as it generally has.

A few falls teach you the most obvious things to be avoided, and progress is smoother. You think that you are already nearing perfection in the art. You smile scornfully as you think of the predictions of your friends. But if at this point you start off for a tramp with an experienced snow-shoer, and try to follow him closely, you soon learn your error. The rudiments of snow-shoe travel are easy to acquire; but the "long and limber stride," in perfect unconsciousness of your strange foot-gear, which carries you through the woods for hours faster than you

can travel on bare ground, is a thing which only experience can bring. There are hitherto unsuspected muscles to be trained, which soon make their presence known by complainings "not loud but deep." You must learn by experiment just how tight to pull the thongs that secure the snow-shoes.

An ascent of a steep slope on snow-shoes is an arduous task. The smooth under surface of the snow-shoe has nothing to catch in the crust and give a purchase for the next step. Four times out of five it begins to slip as you throw your weight forward for the stride, and either slides back to where you were before or twists around sideways. Snow-shoes are intended, by the nature of their being, to move straight forward. When one of them has started off downhill at an angle of ninety degrees from the other, and when the footing of that other is none too stable, the task of bringing them once more into their proper relations is a complicated and delicate one. The snow-shoe must be coaxed, not treated violently; a sudden twist may pull the foot from under the toe-strap. Then the shoe, which is still attached to the ankle by its thongs, gives a good imitation of the ball and chain of a convict. Untying frozen thongs and reinstating a foot in its snow-shoe with the thermometer at twenty degrees below zero is no pleasant task under the most favorable circumstances; but when you are perched on a slope like the roof of a house on a single snow-shoe which manifests an insane desire to slip backward to the foot of the incline, it is well-nigh impossible. But you soon get used to accomplishing the impossible.

— HAROLD J. HOWLAND.

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IN THE CARIBOU COUNTRY

We were in the caribou country. Far north, wrapped in his white shroud, lay Mistassini sleeping through the long white silence until Wa-Wa called him. Nearer, to the left, lay the Big Flat Water drowsing under a pallid coverlid a fathom thick. Over all sprang an arch of mysterious gray, that seemed to draw in and narrow slowly, silently, steadily, while we looked. Far as we could see, stretching in one soundless cordon until they dwindled to mere mounds in the distance, stood what had been sturdy conifers. Now they were tents — drear domes of death they seemed, pitched there by the army of the Arctic for a bitter bivouac. We stood before the small cabin and looked eastward. No sign of the sun, although he had been up an hour. Somewhere behind the sad gray veil he was shining with the wonderful brilliancy of the North, but that day he would cast no velvet shadows for us.

"Well, wot you tink?" inquired Jo.

I hardly knew what to say. Something in the feel of the air, in the pervading grayness, counselled caution, yet here was the last day of my leave, and as yet the twelve-gauge had not spoken to the game I particularly wanted, — the ptarmigan in its full winter plumage.

Jo waited with all the patience of the Indian cross which browned his skin and blackened his long, straight hair.

What he thought of the prospect did not matter, nor would he tell — his kind never do until after it is all over. All he wanted out of me was a decision one way or the other. If I said, "Go," he would lead away north without a word of comment; if I said, "No," he would merely go into the cabin and lie and smoke. Perhaps toward night he might say, "We 'd best gone." He was a picturesque-looking tramp in the gay garb of the lumberman. How much he had on underneath I could only guess, but it was quite enough to spoil the outline of what was naturally a beautiful, lean, strong figure. On his head, six feet from his heels, was a shocking bad hat, a black felt he had picked up somewhere. Bad as it was, it stuck on and shaded his eyes. His long hair protected his ears and that was sufficient. Only his small, narrow feet were Indian. They were hidden in as pretty a pair of moccasins as I had seen. But a glance at his face told the story. Somewhere not far back in Jo's pedigree lay the cross, and in this case the blending of the blood of the indomitable voyageur with that of the redskin had produced a grand man, — game, untiring, wizard of woodland, a child till the hot blood was roused; an Indian when the devil was unchained.

For a few moments I hesitated. If I could only translate the flash of the wonderful aboriginal eyes or guess what lay behind the mystical bronze mask, — but that was impossible. Once more my eyes turned northward. The grayness seemed a trifle paler, and a puff of air, keen as if from the very Pole, met me. "Looks like snow — too cold to snow," I muttered; then added louder: —

"We 'll try it."

The black eyes twinkled an instant with an indescribable

flash, then he turned into the cabin. As I followed I heard him give utterance to a peculiar low grunt, which might have meant anything or nothing. I would have given something to have been able to translate it, for beyond question my decision had raised or lowered his estimation of my woodcraft and general qualifications. I acquired wisdom later.

Within five minutes we were ready. Jo had carefully watched the flask, sandwich, shells, and tobacco go into my pockets, and again had grunted softly when I examined my matchbox. Then, without a word he led the way on the creaking, netted shoes which alone rendered walking a possibility. He was a mighty pace-maker. Snow-shoeing is the hardest of hard work, and Jo certainly showed me all there was in it. Before half a mile had been covered he had me fumbling with mittenless hand at the unruly button at my throat, and by the time a mile lay behind, my forehead was damp in spite of an air that nipped like a mink-trap. At length we reached the edge of a tongue of fir woods, where Jo paused. Before spread a mile-broad open, where some old fire had bitten to the bone. In summer this was an artistic expanse of lichened rocks, with low, lean scrub between; now it spread like a frozen sea, with stiffened billows half buried in purest snow. For minutes he stood, while his eyes scanned every yard of white from his feet to the irregular skyline.

"Mebbe car'boo," he muttered, as he rolled his eyes toward a slight depression which I should have passed by. Then he stooped and thrust his hand into the snow.

"Big bull — old," was all the comment he made as he straightened and again led the way.

Evidently the open had no attraction for him, for he swung off to the right, keeping along the edge of the cover. Here what breeze there was had full sweep, and it nipped keenly at the nose, cheeks, and chin. Already my heavy mustache was burdened with ice, and a certain caution about breathing had developed. But Jo did not appear to bother about trifles like that, although his bronzed face did show a warmer color. His steady, remorseless gait never changed, and the rear view of him suggested that he was apt to go on till spring. Nor was the shoeing easy. The old snow-shoer will understand what the conditions meant, and while I was in very fair form and no mean performer across country, I thoroughly realized that there was an iron man ahead. This too, while merely following a pace-maker — a very different matter from leading.

It was perhaps an hour later when he halted and blew a great cloud of steam from his lips. I understood, and at once produced the flask and poured him a fair measure into the metal cup. The good stuff fairly fell into him — but an Indian 's an Indian.

"You no take?" he queried, while a surprised expression flitted across the chasm which had entombed his share.

"Bad for eyes — snow bad enough now," I retorted, as I put away the flask, for Jo's eyes seemed to say that if I didn't intend to take any, he might as well have my share. But that was not in order.

Instead of moving forward, he smiled and pointed at the snow. "Thur," was all he said.

I looked and saw one, two, three — a dozen tiny trails, as though elfin snow-shoers had passed that way. They were queer little tracks, roundish, indistinct, running in

single lines, the rear rim of one almost overlapping the fore rim of another. Never had I beheld the like. By the size of them their makers should have been of considerable weight, yet they barely dented the snow. Their arrangement was grouse-like, and in a moment I had it. Nothing but the wonderful snow-shoe foot of the ptarmigan could leave a trail like that.

"Snow-grouse — white — eh?" I asked.

He nodded.

"Fresh — where 'bouts?" I continued.

"Look — look lot," he replied.

A twinkle in his eye warned me that I had better be mighty careful, and I felt certain he had already seen the birds. But where? Standing perfectly still, I first scanned the snowy trees. Nothing there. Then remembering the ways of the quail and the many times I had detected birds upon the ground ahead of the dogs, I began a close scrutiny of the snow a few yards ahead. Presently a shiny ebon point caught my eye, then a dull point equally black — then, as if my eyes had suddenly become properly focussed, I made out the soft, white, pigeonlike form of a ptarmigan crouched upon the snow. Then another and another showed, until I could plainly see seven birds in all. They were from about eight to ten yards distant, and as motionless as so many snowballs, which they greatly resembled.

My right hand rose slowly to my frosted chops, teeth seized the point of the heavy mitten, and the bare hand slipped forth and closed upon the grip. In five seconds the steaming hand felt the nip of the air and the apparently red-hot touch of metal. Then I let the mitten fall from my mouth.

Purr-r-whir-r-bur-r! The white forms rose something like quail, but lacking the hollow thunder and impetuous dash of the brave brown bird. Even as the gun leaped to shoulder I realized that the white ghosts were not going so fast, but true to old quail training, the trigger finger worked as though dense cover was only two yards instead of a mile away. The first bird stopped — shattered — within twenty-five yards, and the second not more than five yards beyond its mate. Jo grunted like a bull moose, then dashed ahead, and I chuckled as I remembered that this was the first time that he had seen a "squaw-gun" in action. But, instead of going direct to the birds, he chased on with long strides to a point sixty odd yards beyond, and stooping, picked up a third ptarmigan which had managed to get into line with the second. This he triumphantly retrieved. Beautiful, snowy things they were, with the cold, white sparks powdering their spotless covering and sticking to the hairlike texture of the poor little snow-shoes. Two were perfect for mounting, and even the shattered one might, with extra care, be saved. So far, so good. I had killed my own specimens and added a new bird to the score of the veteran twelve-gauge.

I pocketed the birds, broke the gun, put in fresh shells, and, on the strength of an easy but clean kill, produced the flask. As Jo took his dose, I noticed his face. Instead of the customary grin, it showed grave and solemn as an owl's. The sparkle of the eye, too, was missing, and when the sight of a drink didn't make Jo's optics gleam, something surely was amiss.

"You foller dem?" he tersely queried, as I made a significant motion. I was somewhat astonished.

"Bad luck kill dem — look dur!"

Something in his voice startled me, and my eyes flashed northward, whither his long arm pointed. Under great stress a man sometimes thinks of whimsical things. What I thought was — "I 've killed three pups of the North Pole, and here 's the whole frappéd Arctic Circle coming south to see about it!"

Rolling steadily down, like snowy surf, mountains high, came a squall the like of which I had never seen. One glance was sufficient. The white mass seemed dense enough for good shoeing, and the way in which its deadly advance blotted out the landscape was absolutely terrifying. Under such a downfall a trail would not show for a minute.

"Come — quick!" said Jo, as he turned, and the gleam in his wild eyes was a solemn warning.

I have run in a snow-shoe steeplechase over rough country, have staggered home, beaten and cooked to a turn after one of those desperate efforts which fool men will make for a pewter mug, a cheer, and some woman's smile. I have been "butchered to make a Roman holiday" on sliding seat, steel blades, spiked shoon, and other modern refinements, while shrill voices rang and dainty thumbs turned down (they all despise a loser!); I have been guilty of that crime of errors, getting into the "gym" arena with the wrong man, but of all the bucketings ever I got, Jo gave me the worst! Peace to his ashes — he was a scared Indian and he had no better sense!

Only those who have chased a smoke-tanned fire-water worshipper on snow-shoes, and about two jumps ahead of a blizzard, can understand. I knew that he knew the trail, and I vowed that if he lost me, it was my fault. All I could

see was his dim back rising and falling in mighty effort — then we ran for it in dead earnest. No picking the way — no anything but chase — chase — chase. He never hesitated nor slackened, and all the while the snow thickened and the wind shouted louder and louder at the death song. At last, with a roar and a wild horizontal rush of snow, the full strength of the storm struck us. Then we heard the true howl of the White Wolf of the North, as the men in igloos hear it when the sea solidifies. Mercifully it was at our backs, — any other point would have meant — but there's cold comfort in that! I knew that if Jo once got out of sight, I might not be found till spring; and winters are long on the North Shore. Besides I had things to attend to later, — my people to see, and my ptarmigan to mount, — so I chased on. And ever before me was the snowy back, ever in my ears the White Wolf's howl, and in my breast the tortured engine pumping to bursting strain. I cursed the hampering clothes and the buttons that seemed ever drawing tighter, the thongs that cut deep now, and the nets that had to be swung true while they felt like lead to the feet.

At last came the blessed "second wind," and none too soon, for it found me rocking. The snow-padded back was ten yards ahead now, rising and falling with the same old motion. Even and anon a savage swirl would hide it in a blur of white, but I was going easier and felt I could close the gap at will. Presently it vanished, and on the instant of its disappearance I realized my danger and spurted vigorously. Before I had time to think, Jo was again in view, and I mentally vowed that not for my life would I let him out of my sight. Indian-like, he had no

idea of halting or looking round to see how I fared. I was to follow — if I failed to do so, that was my affair. When an Indian gets scared, he 's the worst scared thing imaginable; and Jo was going to the cabin by the shortest route. If I failed to make it, he 'd hunt for me — after the weather cleared.

Through the roar and the whine and the icy fog of it all we pounded ahead. First, an uneasy dread took hold of me. Did Jo know whither he was drifting? Had his instinct for the once failed? We seemed to have covered an awfully long route. Then another and worst fear came, I was getting tired. No mistake about that. No one knew better than their owner why leg muscles were complaining so. One quarter of a mile farther, if we had to do so much, and I'd be done so brown that a bake-oven couldn't tan me more.

What then? I 'd follow the trail as far as I could, then curl up. I had the flask and the infernal ptarmigan, and I 'd live on them for two days, anyway. But the cold — Oh! yes, the cold — well, it would freeze me stiffer than the North Pole in twenty minutes and then —? The Gray Wolf would come and nuzzle for ears and nose and fingers and they 'd snap like icicles and he 'd thaw them in his steamy old paunch along with the confounded ptarmigan; but his teeth would click and slip on the flint-hard larger parts and I 'd at least have the satisfaction of compelling him to wait for a thaw! The rasp of a twig across my cold nose startled and hurt me so that I roused from the first stage of the deadly, cold-begotten drowsiness, and dimly realized that I was running into cover. The edge of the wood! Yes, and there was Jo's track and Jo himself just ahead.

In ten minutes we were in the cabin. Fifteen minutes later we had got rid of snowy outer garb and had looked upon something hot and oh! so welcome. Presently Jo raised his drawn face from his hands and said: —

"Bad to kill dem white snowbird. But you good — run like bull moose — else los' !"

I muttered something — I hate to try to remember what, for my eyes were closing in utter weariness.

— Edwin Sandys.

ON SNOW-SHOES AMONG SNOW-SLIDES

After getting really limbered up — for strength and staying power are necessaries in the mountains — Dick promised to take us on a trip "worth going," as he described it. "I dunno as the girl 'll stand it, but if I read her right, she 's game and can go it; if not, we 'll get her home anyhow even if we have to carry her." And he meant it, and for that matter, any one of those boys would have done anything for that girl; they were proud of her daring to come into their "hills," as they called them. It was a sight that did one good to see — all their little gallantries and kindnesses; and Leo, — she did her part in return. Evenings they would gather around her and she would tell them stories of the wonderful eastern city from which she hailed, tactfully talking of Coney Island and its marvels and so on. Well, the day had come for our expedition. Dick planned it all. We were to snow-shoe to a deserted prospector's cabin up the Uncompahgre Gulch, stay there overnight, and next day push on as far as the highest timber line in the world on Mount Tuttle.

Thus it was on that clear March morning, the four of us (for "Blackie," one of the miners, had come along too) made our start by starlight. The frozen snow was crusted and hard enough to bear without snow-shoes, and we made good time. After a bit, however, we slackened pace; Leo

had been walking, chatting, and eating an orange all at the same time. At an altitude of twelve thousand feet one can't do more than one thing at once; your breath comes all too slowly, and before you know it you feel half strangled, and pant and have to rest. Dick laughed and said he saw this a-coming.

What a tramp that was! When the sun rose, the snow softened and we used the "webs." Dick had ski. At noon we reached the cabin; it was almost buried, the snow being five feet on the level.

Next morning we were breaking trail good and early again, and still the snow deepened — as deep as I ever saw it, eight to ten feet, for we had come to the region where snow is permanent the year around. Toward evening the weather changed, a heavy snowstorm overtook us. Dick was worried and told me he thought there would be a bad blizzard before night; things were beginning to look tough; some of the snow-slides were n't down in the region where we were. As I write it my pen quivers, for what words can describe that all but tragedy of the trip? — for even as Dick spoke to me the most dreaded thing in those wild mountains was happening. Raising his voice, it rang out clear and sharp: "Get ahead, there, for God's sake, get ahead!" We all knew what he meant; he had told us quietly before that if ever such a warning came, at all costs not to lose nerve, but simply get right along with the utmost speed.

It was first just a crunching; no novice would notice that ominous sound. Dick did; the snow had started to give way below; we had started it. I remember little more. We all plunged wildly forward. Luckily none of us fell.

We all thought of the girl, the first thought we had. There is a space in which one does n't think at all on occasions like this.

How strangled I felt — we all felt — just struggled for breath! What did I see, any of us see? Just a great cloud of white mist, with a terrific rumbling roar. Thank God, we were not in it, or else no tale would have been written, for we were right on a sheer hillside! We had struggled into some quaking asps just in time and had got out of the course of the slide.

After things had quieted down: "Dick," I said, "let 's make for home." Neither peaks nor timber lines have ever attracted us very much, and we had our story.

— Arthur Hewitt.

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SNOW-SHOE PICNICKING

A FIFTEEN-MINUTE trial will teach you the rudiments of snow-shoeing. It is very simple. You merely step forward far enough to clear the other shoe. You do not need to walk with your feet spread far apart; the inner edges of the racquets glide over and over each other with each successive step, and the tails of the shoes always remain dragging upon the ground. You might better have even some of your sarcastic friends around at the first attempt, because if you should happen to get a fall into deep snow, you will probably be in the position of the boy who went swimming with "bladders" tied to his feet.

And so you go forth into a new world — the woods in winter. You thought you were going to be cold, and bundled up in anticipation; now as you go on your perspiring way you begin to take things off and drop them by the wayside. The snow is soft, perhaps, and the shoes sink eight or ten inches; it is obvious that each step forward is only to be accomplished by lifting the shoe out of the hole it has made — at least it is obvious after you have forgotten to do it once — and you begin to wonder what causes that peculiar feeling along the front of your thighs. Then you climb a few hills and your tendon of Achilles begins to sit up and take notice. After a while you go home. You are good and tired of course, and you are hungry — you bet you are hungry!

The next time you go out in the evening, perhaps. There is a full moon and the winter woods are a fairyland, whose inhabitants are sparkling with diamonds. When you return this time, you are just as hungry, but less tired. One day you start on a snow-shoe picnic.

The word "picnic" calls to mind pine groves and babbling brooks with the thermometer dodging around eighty degrees in the shade; that one may be comfortable and contented on a winter picnic is not generally known.

You drive into the country five or ten or twenty miles to an old inn — an old inn where they are always expecting such parties, if you know where that is. There you make arrangements for a five o'clock dinner and then sally forth. You strap on the snow-shoes, pick up the coffee-pail, the tin cups, the packages of sandwiches and bacon, and "hike" for the woods.

The fun begins at the first fence; snow drifts on to stone-wall and one may gracefully glide up and soar over it; on the top rail of a "snake" fence one can lie at full length and, so to say, "wave" one's snow-shoes over gracefully — or otherwise; but snow blows through barbed wire, and a fence of this type is a highly entertaining proposition for snow-shoes. Some of the party lie down and wriggle through. You think you can climb it; you get to the top and sit on a post and there you are! The tails of your shoes hang straight down; if you jump you break them. You are not even sure that you can fall and do it gracefully; but assistance is always at hand.

Numerous camping places begin to present themselves. In turn each one of the party, after a fall, promptly decides that this is the spot, setting forth the claim that they have

already begun to clear away the snow. You place them properly on their feet again. They dig the snow out of their eyes and begin to see differently, so you go farther into the woods. After a while you find a sheltered spot, and it is unanimously voted that you eat right there and then.

You slip off the snow-shoes, and using them as shovels, scrape away the snow down to the ground. In the centre of the cleared space — eight or ten feet in diameter it should be — you build your fire and melt some snow for the coffee.

The snow on the windward side of the little clearing is carefully packed and lined with fir boughs. Now you sit around and eat things; no one waits for the coffee to boil — not much! When the last crumbs are eaten and the coffee-pail emptied, you smoke and have a talky-talk.

By and by you slip on the shoes and file away through the woods. A sharp climb brings you to the top of things, where the united party stops to catch its breath. Then you hunt for a slide. All you need is a hill that is steep enough; you will not have a bit of trouble, the steeper it is, the more quickly you arrive at the bottom. The first one down the hill breaks a trail — makes the slide. You place one foot before the other and sit upon the tail of the rear shoe, which rests upon the tail of the forward shoe. By simply turning the foremost racquet to the right or left you easily dodge the rocks and trees. If you are not particular as to where and how you land, you might stand up and slide. An old-fashioned toss into four feet of snow is no joke, however; you either have to turn to and dig yourself out or accept the kind assistance of a friend who may also be in need.

Now the fading day turns you back to the inn. While you wait for dinner, you go up in the dance-hall — an old country dance-hall it is — and waltz in your moccasins. The dinner! Piping hot oyster-stew, chicken-pie, baked — but what 's the use! Afterward you draw up in front of the blazing fire and smoke and tell your best stories. And last of all — whisper! — the ride home in the moonlight behind the flying horses, with the right girl next, is just about the right kind of a finish.

— L. D. Sherman.

THE ACTIVITIES OF A SNOW-SHOE CLUB

THERE is no lack of opportunity if a Snow-shoe Club desires to become a factor in the wider social life of its community during the winter months. Its weekly or fortnightly tramps may rendezvous where guests can be invited to hear the tale of the day's tumbles or achievements. Special excursions, such as the ascent of a neighboring mountain at an unusual season, should enrich the club quarters with large-scale maps usefully annotated. A long-distance race, or cross-country steeplechase, held annually, with the finish in some central spot, can create a deal of local interest and may help in the establishment of a chain of small organizations ready to join in friendly competitions.

Assuming that six small organizations exist within meeting distance of each other in such a capital snow-shoeing country as northern New York, for example, it should be possible to secure subscriptions for a trophy to be competed for by *bona fide* members, in a series of contests; interest may be heightened if one race for the trophy be run at the annual festival of each club represented, and a final race between the winners at a joint carnival. There is wholesome festivity in making the objective point of a club run the meet where the club racing team deserves encouragement; and the contrasting colors of the clubs, mingling

with the more sober gayety of the costumes of their sympathizers, will present a picture likely to be distinct among the winter's social "events."

The ordinary track races: 100 yards, 120 yards, hurdle races at the same distances, 220-yard runs, 440-yard runs, the half-mile, or runs of longer distances — from one to five miles — are scarcely so full of genuine entertainment as the less formal sports in which a certain amount of luck puts the contestants on an equality. A resourceful committee will need no suggestion; but at least once in a winter a night run should be held, for there is no finer sight than a slope alive with snow-shoers, when the snow is sparkling like diamonds in the frosty moonlight, or when yellow, smoking torches in long procession wind in and out between the trees, with now and then one going suddenly into eclipse, as its bearer, soaring over a fence, catches a shoe point, and makes a dive instead of a gracefully gliding landing. A relay torch race will always set your elder guests to misquoting Greek; an obstacle race; a chase for a torch hung in the centre of a ring, in which the contestants start from the circumference of the circle at the same time, will raise a shout of laughter. In the last-named contest the winner must not only secure the torch, but carry it alight to his starting-point, and it will take some speed to escape with it without a collision.

At one side there will have been, of course, a roaring fire; and by the time the contests are over the great logs should be in condition for making ready the hot coffee and broiled bacon which may be served as an appetizer before the club and its guests return to the quarters, where a more formal entertainment may have been arranged. Weather suitable

for snow-shoeing is hardly in keeping with an elaborate meal in the open, but deliciously browned bacon between slices of thin-cut brown bread and coffee piping hot can be quickly served and will be accepted with enthusiasm. Take a slender rod some eight feet long and on each side of the tip, about an inch from the end, insert a small, stout screw-eye; four or five inches farther from the end insert another pair; with a bit of stiff wire about eighteen inches long run a loop from the lower screw-eye on one side through the one nearer the tip, out beyond the end of the rod and back through the other pair; leave one end of the wire free to be pulled out. With such a contrivance one can thread upon the wire a number of slices of bacon and broil them over a bed of coals, making a dish for a king — or a guest of honor.

— J. C. D.

STORMING THE ICE FORT

For this its winter carnival Quebec had erected many ice structures, but the ice fort, most imposing of them all, — *Fort de Glâce*, the gay, — was constructed upon the fortification wall near the Norman turrets of St. Louis gate and at the base of Parliament Hill. It was a well-chosen spot. On one side was the Esplanade Park; on the other the open area of Parliament Hill; St. Louis Street was below, Grand Allée above the gateway, while the gray wall wound between. The pretty ice fort, with its turrets and loopholes, shone a lustrous diamond mass at noonday — a starry radiance at night. . . . The people massed beneath. The windows of Parliament House were thronged with favored guests, and over all the searchlights played fitfully, picking out vividly for an instant some group of eager faces, then dropping them again into darkness.

Down Citadel Road moved an army of torch-bearers, snow-shoers in gay costumes — soft white blankets, with borders of cinnamon and black; blue with its border of white; dark green with cream; glowing crimson with relief of white; and (not the least artistic) furry black blankets bordered with gold, — these were but a few of the varieties that made Quebec's gray and white streets a riot of gay colors under the torchlights of Carnival week.

The more soberly clad militia in winter accoutrements first climbed the battlements to man them for defence. A rocket whizzed its way into the dark sky and the battle was on. Rockets and Roman candles shot upward to break in a thousand balls above the fort; fiery snakes twisted their way through the night, tossing a spray of sparks over the turrets. Shells burst and mortars boomed; the fort was under heavy fire and roused to its defence, changing its gleaming whiteness to crimson and then to emerald-green. It glowed like a mass of exquisite opal, fiery hearted. Bombs broke forth; yellow fires flashed out; fierce red globes fell from the loopholes. Thunder and flash; a play of twisting whizzing light; a storm of incandescence; a carnival of light; it was indescribably beautiful. . . .

But suddenly the crimson glow began to pale. The heart of the ice fort was growing faint, the bombs ceased, the rockets dropped, fainter and fainter faded the opal glow until the ice fort stood dull and dim in the night — a defeated thing.

Then with songs and cheering, and flaring torches, the gay besiegers mounted the battlements with a dashing charge. And in their possession it was alight again — not with the passionate opal glow, but with a cool electric radiance. They sent the Union Jack fluttering to the top to wave in the dark night air to the rhythm of a patriotic hymn from thousands of voices, and with a last ringing cheer the play was over.

— Faith Fenton.

From *Canadian Magazine.*

"THE OLD TUQUE BLEUE"

HURRAH! for frosty winter nights — the old moon shining clear;
Our Club meets at the rendezvous with hearty shout and cheer.
We ask no better kind of fun than on the swift snow-shoe,
With chaps who never shirk a tramp, who wear the bright "tuque bleue."

Chorus

Lightly dipping, tripping, o'er the snow
This Club in Indian file tramps over many a mile.
Lightly dipping, tripping, o'er the snow,
Hurrah! for the wearing of the bright "tuque bleue."

The frost is keen, and cold the wind, the drifts are grand and high,
'T is just the time for veterans their sturdiness to try;
In Indian file we tramp along, no matter what may brew,
We love the blustering storm that beats upon our bright "tuque bleue."

Oh, you who wish to lead a life exempt from every woe!
Just step into a pair of shoes and tramp it o'er the snow;
There is nothing like a ten-mile tramp your vigor to renew,
So don't back out, but come along and wear the old "tuque bleue."

For thirty years our Club has lived and earned a noble
name —
On cups and medals, not a few, you'll find engraved its
fame;
When limbs are stiffened by old Time, we'll keep the Club
in view
By training up our olive leaves to wear the bright "tuque
bleue."

— W. G. Beers.

By permission.

"The Old Tuque Bleue," written by Dr. W. G. Beers, and first sung by W. H. Whyte in 1873, is familiar to nearly every winter visitor to Montreal, certainly to every one who during the eighties witnessed the winter carnivals in which the Montreal Snow-shoe Club took so active a part. The Club is renowned the world over; on the occasion of the last carnival it was able to muster over six hundred members in its torchlight procession, and its march to the swinging measure of "The Old Tuque Bleue" was one of the main features of the attack upon the ice palace.

SKIING

"THE WOODEN WINGS OF NORWAY"

According to Scandinavian ideas, the time to learn the use of the ski is at the age of three or very soon thereafter. At that age the little ones in Finland are measured for their first pair; and at intervals as they grow the ceremony — being measured for one's first ski is as ceremonial an occasion as inducing the last new baby to take his first step — remains the same. One stands erect, with the arms stretched above the head, full length, bends his fingers at the second knuckle, and selects the ski which will just pass under the finger tips when it is held upright with one end resting on the ground. Beginners will probably find that a slightly shorter pair is at first more easily managed.

In the northern countries, where travelling on ski is as natural as walking, children are put on them almost as soon as they can run about alone; and so soon as they have learned to stand on the ski with one foot in advance, the knees bent, and the body thrust forward, they are started off. They tumble, of course, but look on it as a game in which they are eager to equal the skill of their older brothers and sisters whose swift darting movements over the crust remind one of a flock of swallows.

If the toboggan and the ski had originated in the same country, one would surely have admired the ingenuity of

the Cree or Micmac Indian who first split his toboggan lengthwise and coasted with half on each foot; but unfortunately for this theory of origins, the ski have never been generally adopted in America for the purpose of getting about the country in spite of Canadian snow-drifts; and the toboggan, when introduced at some of the continental winter resorts, failed to win any wide use.

In essentials, the ski is a long narrow strip of straight-grained wood; hickory is very often used, owing to the difficulty of securing suitable ashwood, which is still with many the favorite material. The thickness is an inch or less; if the wood be sufficiently tough the width, about four inches, and the length varying according to the height and choice of the wearer. The end which extends back of the heel is square, the toe is curved, not too sharply, and at the tip is pointed. The wearer stands at the centre, where straps attach it securely to his boot. An accomplished Norwegian may run about by simply inserting his toe under a strap as if the ski were a heelless bath-slipper, but most runners, if they tried to use the loose ski, would sooner or later see them vanish on an icy crust, — and slide or wallow homeward unaided.

The simplest form of foot-fastening is a plain cleat attached to the upper side of the ski by strong screws, the heads of which are deeply countersunk in the bottom face of the ski. Under its front and back points straps bind across the toes and the instep. Its disadvantage is the lack of horizontal elasticity which makes jumping difficult. More modern and greatly preferred by experts are the bindings with metal plates; in the best type the plate is cut by a pattern of the boot on which it will be worn, be-

fore it is fastened to the ski. Norwegian boots are often recommended to the ski-runner, but usually a strong, well-fitting pair of such boots as he is accustomed to wear will prove more serviceable. They must not fit too tightly; room for an additional pair of socks without restricting the circulation is very desirable; but they must be strongly blocked at the toe to lend firmness to the binding. Long knitted stockings rolled back so as to keep the snow out of the boots, with knickerbockers of a smooth-surfaced cloth to which the snow will not cling, give the wearer a comfortable costume. Mr. E. Wroughton advises the use of the cloth from which riding-breeches are ordinarily made.

It will never be found safe to go on even a short tour without a kit-bag, or, as it is called all over Europe, a "rück-sack," which should contain a light repair-kit such as bicyclers carry: at least one metal tip to be clamped on the end of a broken ski in case of accident; a set of climbing irons attachable to the ski before attempting to ascend an icy hill, and possibly a set of strong crampons if there is any likelihood of having to cross ice-fields on foot; a tube of wax and a cloth with which to rub it on the under surface of the ski; matches, a candle, and one of those bent wires like a distorted safety-pin by which the candle can be fastened in some convenient place, leaving the hands free to hold a map or do repair-work. The list might be made much longer, but it is not wise to forget the hour when a tired man feels the weight of every ounce he carries. By the way, these conveniences should always be carried in a bag of canvas that is closed at the mouth with a draw string and can be carried on the shoulders by straps which leave the arms free play. A knapsack may give a more trim air

to the wearer, but he will find no pleasure in undoing buttons or buckles with fingers numb with cold.

The question of whether the ski should be grooved on the under surface or entirely smooth is often disputed; for ordinary straight running grooves are said to be desirable as giving stability in the chosen direction; on the other hand, if the runner desires to practise fancy curves, swift turns, and similar manœuvres the groove is more of a hindrance than a help.

Finally comes the choice of a pole or sticks. Some runners urge that the beginner should use neither, claiming that without anything of the kind one can more quickly learn that delicate balancing of the body by which the steering is done under most conditions. Of the two the pole came into use earlier; it was used for balancing and also as a brake in making steep descents; it was often as much as fifteen feet long and correspondingly heavy, so that in time the country lads of certain parts of Norway adopted instead a brace of shorter lighter sticks, and the fashion spread until the latter are almost universally used. In Canada and elsewhere beginners use a single stave, though lighter than of old, chiefly as a help in the difficult business of hill-climbing, turning the ski broadside to the slope, digging the pole into the snow, and clinging to it for support. The double sticks in more common use are of light bamboo, about five feet long, iron-tipped, with a wicker disk a little way above the tip to keep the stick from sinking so deeply into the snow as to pull it from the runner's hand. It is as well to add a leather wrist-thong near the other end, as the stick is frequently dropped in a fall and may slide to a considerable distance unless there is some such check.

— J. C. D.

THE OLYMPIC GAMES OF THE NORTH

THE meet held every two years on Holmenkollen Hill, near Christiania, is an international affair, ably managed by the united ski clubs of Norway. To it every ski-loving country of the world sends its most expert jumpers and distance runners. A royal box is always provided, and usually some member of the royal family of Norway occupies it, for the king himself has been an enthusiastic skier. Regiments of the military, who have been trained in manœuvres on ski, turn out in force, with color and noise, for the regimental bands have been brought along.

Absolutely democratic is the sport, and the competition is open to any one who can qualify with the necessary skill. The prize is of scarcely more intrinsic value than the Greek's crown of laurel, but the peasant boy who has saved every possible crown for months in order to take the trip to the games prizes the simple medal, if he wins it, beyond the whole value of his father's farm.

Competent judges decide the credit marks to be given each man on his showing in each of three non-consecutive jumping trials, taking into account not merely distance, but style and grace; after the long run physical condition is also a factor, and on one occasion was the decisive factor, so close was the tie otherwise.

— J. W. SCHREINER.

SKI-JUMPING IN THE HOLMENKOLLEN GAMES

The mass of spectators closed in together in a horseshoe shape, the rounded part of which was formed at the base of the hill, leaving a sufficient space for the jumpers to manœuvre about after they had finished their evolutions. The keener sportsmen stood at the ends of the shoe halfway up the hill, just inside the boundary set by the line of forest which had been left standing, and formed a picturesque background to the scene. Here at this end, a third of the way below the brow of the hill, which was out of sight, had been built up a bank of snow, about four feet in depth at its outer end, in which was embedded the Norwegian flag, emblematical of the endurance of the Norwegian race in the rigor of the cold.

By the judge's box a flag is lowered, a mournful note is sounded somewhere out of sight, and whilst we are wondering and raising our eyes upwards we espy a black speck racing down the hill, and before we can quite take in what has happened the first jumper has reached the base of the hill. We are dullards and have to collect our thoughts more sharply. Another note is sounded, another black figure darts down; we turn round; he is in the air, and he too has reached the bottom. We have to be sharper still if we wish to watch the jumper throughout. First he slips over the brow of the hill, tears down the narrow incline

SKI-JUMPING.

with feet well set, but knees bent and with eyes straining towards the bank from which he is to make his leap. There is silence, the breath of every one is checked, the jumper has reached the platform, he springs right forward, away into space, steadies himself in the mid air, still for the tenth of a second, then he drops like a hawk on to the slope of the hill beneath. Here comes the real test, for if he has done well, he will land so that his right foot is slightly in advance of his left, but pointing straight in front with knees barely bent and his hands rigid at his side. Then he slips down as he holds himself erect into the flat open space beneath, where he joins the little knot of those who have preceded him and ready to congratulate him upon his neatness of style. A few hushed bravos are raised, but there is not once the volley of sound that would come from the gorges of Britons at any such gathering, and one is much surprised at the difference.

For a time the equal skill that is shown by the competitors becomes monotonous, but there are one or two who have missed their footing or who are less efficient; some fun ensues, and the crowd makes merry thereat in a good-humored way. No. 49 loses his balance in mid air, swings his arms as though he happened to be a flying windmill, and then, when he descends to *terra firma* again, he is seen no more. He falls, and in his place there arises a thick cloud of powdered snow which races down to the end of the hill, and there again reassumes the shape of a man little damaged but very crestfallen. Sometimes the points of the ski rise above the cloud of snow that he has raised in his tumble like bayonets fixed for a charge after a sharp fusillade. Sometimes again a dog rushes out to see where

the genius has disappeared, and causes quite a commotion as he stumbles in the snow after the victim. Generally on these occasions caps are left on the hills — sad testimony of the fall — and the jumper, so far from being able to beat a hasty retreat, is obliged to return ignominiously to receive it again from the hands of one of the soldiers who picked it up and is busy with the rest of the squad told off for the purpose, to rake over the uneven surface where he has fallen.

One incident which provoked unusual laughter was when a jumper fell in such a manner that his ski stuck in the snow and a policeman had to render to him "first aid," as he had driven them so far into the ground that he could not release himself. It seemed really marvellous that there were comparatively few accidents; one or two men snapped their ski, but when men spring from such a height, one would expect that they at least ran the danger of breaking a leg or arm. As a matter of fact, this rarely happens, and may be partly accounted for by the fact that only men of known experience are allowed to join in the contest.

I gained the following impressions from one who was an old hand at the feat. He remarked that as the jumper rushed down the hill he could see nothing beyond him except the edge of the snowbank from which he made his leap. The people that waited beneath to see him spring were out of sight.

I was further informed that when the jumper had alighted from his fall through the air, he ought to lean back a little if the snow is soft; but if it happened to be frozen, then it was necessary to incline forward, otherwise the feet would slip away, and a fall would be inevitable. At the same time

the competitor should remain as nearly at the attention as possible, and the inclining forward was often overdone in the attempt not to tumble backwards. In conclusion, it was advisable to maintain an easy balance and to act with the speed and completeness of a kodak.

When the last jumper had been allowed his second essay, the people showed signs of moving away, but some few stayed for a few moments, whilst others raced up to the top on their ski and came dancing down and leaping over the border by twos or by threes; a sight that was most effective, for in some cases the pairs would land and descend in splendid form; in others all three parties would tumble pell mell, the laughing-stock of the onlookers. But even for them the enjoyment was short, for the soldiers, having received their instructions, at once brought up their shovels and destroyed the snowbanks from which the jumps had been made. This was a necessary order, otherwise youngsters without fear but inexperienced would have raced down without order in a howling scrimmage, which must have ended in a more or less serious accident.

The rendezvous soon becomes deserted, and the newly erected platforms in between the forest of old pines look as if an army of locusts had swarmed in the clearing and eaten off all the bark. Indeed, as the crowd gathered down below with their ski high above their heads as they carried them, it seemed from above as if they were a crowd of insects with tremendous forceps.

— M. Edmund Spencer.

Two Winters in Norway, Longmans & Co.

A SKI-LÖBNER WHO BECAME FAMOUS

At a place now called Majorstuen, not more than a couple of miles out of Christiania, existed a school in which students learned their lessons and enjoyed their larks much as every other schoolboy loves to do all over the world. But there was one amongst them who was respected but not exactly a favorite, for he was of a retiring nature. He preferred to roam in search of adventure rather than risk the probable sequel of breaking a master's windows. He was bent in his own mind on training himself for the future, and he went about his recreation in a very serious way. When the winter again returned, he would fasten on his ski and be lost in the wood for the rest of the half-holiday, venturing along the narrow path that knitted itself between the firs or else daring a jump in an open clearing that might have made an older person feel no coward at declining the leap.

During one of his winter roamings this lad saw two strange fellows enjoying themselves much in the same way as himself. But he could see at once that they were strangers, for they had a style peculiarly their own when racing down the hills. The schoolboy had been in the habit of carrying on his journeys a long wooden pole, some fifteen feet in length, which was a great tax upon him as he struggled up the hills. But this burden had to be endured because the pole was necessary to secure one's balance when

making the descent, and also for steering purposes in the same descent. But as he looked at the two lads madly rushing down the hill in front of him with merely a couple of short sticks in their hands he stood still, astonished. He watched them for some time carefully and then found reason for further surprise. In preparing for a snow jump he had always been in the habit of making a snowbank at the bottom of the hill, so that he would finish the descent, leap into the air, and then land on to the level. But these Telemarken peasants — for that was the livelihood of these two stray lads — had built up their bank of snow halfway down the slope, so that they had a good run, then a jump into the air, and a fall on the slope of the hill, again enabling them to continue their run. This added greatly to the interest of their rivalry, for it required more skill to come down on the slope and then to finish the run standing at the bottom. On the other hand, although it may not look so on the face of it, it is undoubtedly the safer plan, for if the jumper fell, he would have more chance of breaking his fall by sliding down the soft snowy bank instead of descending in a heavy mass on the level. . . .

But on the occasion to which I refer the plan seemed to be so novel to the schoolboy that he raced home on his ski and hailed his brother, not telling him the cause of his excitement, but persuading him to follow him back to the point of interest. It is hardly needless to mention that the brother was almost as expert on ski as the elder, so that he would have as great an appreciation of the novelty as his guide. The two young peasants were still amusing themselves, all unconscious of the interest that they were causing, and doubtless considered later that it was rather

ridiculous that two schoolboys should manifest such keenness in their actions. But the Christiania boys were not to be discouraged; they made friends with the peasants, and when they went home, they persuaded their parents to pay the lads to teach them how they carried out their local plan. Doubtless the peasants were nothing loth, for they had merely come to the capital to take part in the great annual fair that is always held about the first or second week in February.

As the town lads became greater experts they challenged the Telemarken farmers, but rarely competed against them successfully, although always in a friendly spirit. Annual contests were held, with one or two exceptions, and prizes were awarded, which for many years were consistently carried off by those from the country districts. This was but natural, seeing that there it is simply part of their daily occupation in the winter months, for without ski they would never be able to get many steps beyond their own front door in the deep snow that covers the ground. But at last Christiania was in a state of festivity, for the Ladies' Prize was carried off by one of their own folk, and he was a schoolboy of old who had first drawn the attention of the Telemarken method to the others. It was worthy of the lad's perseverance, and of the man who afterwards tracked to the "Farthest North," for the boy happened to be none other than Dr. Nansen himself. His brother has gained an equal reputation in his own country as one of the soundest lawyers that the country at this time possesses.

— M. Edmund Spencer.

Two Winters in Norway, Longmans & Co.

LONG–DISTANCE RUNS ON SKI

THE first and third days of the great annual "Hoprend" — or as the Norwegians proudly call it, the "Olympic Games of the North" — are devoted to long-distance runs, which are a compound of steeple chases, without horses, and obstacle races. For days, nay, weeks before, the newspapers vied with each other in prophesying the winners, and the health of the different competitors, their condition, style of running, etc., were discussed with the most embarrassing freedom.

No prettier or more charming spot could be chosen for the long run than Frognersæter, situated high up among the fir trees. The *rendezvous* for the ski-löbners is one of the most delightfully situated restaurants it is possible to conceive. Built of brown timber in the ancient Viking style, with overhanging eaves, quaint dragons' heads, and all sorts of queer mythological animals stretching out gargoyle necks into the air, it made a wonderful background for the hundreds of sportsmen stacking up their ski and sticks on the heaped-up snow.

At the back of the Sports Hall a small wooden barrier had been erected, forming a square space, with an opening at either end for the judges and starters. Behind this barrier the spectators took their places, forming two lines leading down into the wood. At first I thought I must

have come to the wrong place, so little room was there left for competitors. All I could see was a narrow lane leading through the wood, down which it would be impossible for more than a couple of men to run side by side. Where, then, could they start more than a hundred competitors? However, I learned that they were started one by one. Several stout gentlemen came hurrying upon ski, and donning heavy fur coats and *fin-sko* (high boots made of reindeer skins stuffed with hay), they sat down at the two tables on either side of the enclosure, and after comparing watches commenced arranging the preliminaries of the race.

A number of athletic young men with well-knit forms were congregated at the open end of the barrier. They wore no distinctive dress; simply a thick woollen jersey, short coat, and ordinary trousers tucked into ski-boots — a particular kind of boot made of soft, thick reindeer leather, shaped to the foot and with a pliant sole. At the back is a small strap for securing the boot to the ski. As a name was called a man stepped forward, took off his coat, received a large placard with a printed number, which he affixed to his chest, and then took up his position inside the barrier. While he was waiting for the signal to go, he kept his coat hanging loosely round his shoulders and his cap on his head, and planted his sticks firmly in the snow ready to push off at a second's notice. The judges called out, "Get ready!" a friendly policeman snatched away the coat and hat, and then almost with the same breath came the word, "Go!" and before the word was completely finished he was out of sight. A friend waved his cap, the few Britishers present raised a cheer, and then the next competitor stood forth. Each man seemed to have his

own manner of starting. Some stamp the snow hard to get a good grip of the surface, and with one ski in front of the other slide gracefully down the slope. Others start with a series of short hops like a rabbit lopping over high grass, and then, getting into the swing after a few yards, go off at a magnificent speed with scarcely any perceptible movement of the body. Another man will stand with his back bowed almost level to the ground, with his eyes fixed before him, and as the signal is given will bound straight up into the air and then, swaying from side to side, with a few powerful thrusts of his two sticks will race off at lightning speed.

The long run is over twelve English miles of the most difficult country that can be found, up hill and down dale, over fences and across ditches, and where the going is good, artificial obstacles have been erected to make it more formidable. The path — if a track a foot or so across can be called a path — becomes narrower and narrower, leading through forests where the trees are so close together as to leave scarcely an inch of space between the flying ski; sharp corners have to be negotiated, where a too sudden turn would snap the ski into splinters; mounds that are nothing but slippery ice have to be jumped; steep ravines with all sorts of pitfalls in the shape of hidden boulders have to be rushed; narrow ledges, where scarcely a goat can find foothold, must be crept over; danger, nay, sometimes death itself — has to be encountered at every step. It is a marvellous performance of pluck and daring. Up and down, guided by the pieces of red stuff on trees or overhanging rocks, or by the warning voices of non-competing members of the clubs, stationed at different parts of

the road; on, on the ski-löbner goes, perspiration pouring in streams from his face, with eyes blinded by the dazzling whiteness of the snow, nerves strained almost to breaking point, his breath coming in great gasps, his breast working convulsively, until one can almost see his heart throbbing. Sometimes he falls, as the points of his ski catch on a jagged rock, but he is up on his feet in an instant, for a second lost now can never be retrieved. The blood from many a cut and bruise streams down his ghastly white face, but still on he goes until there comes the last mad rush down the mountain and up through the woods, and the wooden barricade is again in sight.

The competitors are expected back just before midday, and the finish is even more exciting than the start, for the first-comer is not necessarily the winner, as the time of his starting has to be reckoned with. First a faint cheer can be heard in the far-off distance, and scouts on ski come hurrying up from the outposts to announce the proximity of the competitors. Everybody lines up and watches the men coming up the slope, putting on a spurt for the last few yards. Some are in a very exhausted condition and can scarcely drag their feet along, but the majority, though very pale, seem none the worse for the run.

No accidents occurred during the run I witnessed except that a number of men broke their ski. This is not always the case, however, as sometimes limbs have been broken, or men have frozen to death through sinking exhausted into the snow.

— Madame von Thiele.

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OLD WAYS AND NEW

On the ski question the *bonde* (peasant) certainly scores over his town cousin, for he it was who not only was the first to adopt them, and fit them, in a modified form (the circular *tryger*), to the hoofs of his horse, but he taught the *bymand* (townsman) if not the world (as we see it in the Swiss chaussées), their possibilities. The wonder is that they have not been adopted long ago in other alpine countries. As a child the delights of ski-running are among my very earliest memories. In those days, however, a *bonde* would never have dreamt of fastening the ski to his feet, as is now the general fashion; for he had got the notion into his head that it would result in a broken leg, or a twisted knee or ankle-joint, should he fall in one of his ferocious mountain descents; and when it is remembered that he showed as little hesitation then, as now, in negotiating a *hop*, or an almost vertical *rend*, it testifies greatly to his undoubted intrepidity. It had its disadvantages, this loose ski system, in many ways, as when, for instance, in the event of a fall high up on a steep wooded slope, a runaway pair of ski came flying down at express speed, among unsuspecting wayfarers below; or when, on days of varying temperature, the *fotos*, or foot-loops — often of wicker — were constantly getting caked up with frozen snow. In those days the prize *ski-rends* of the *bonde*, with

their *hops*, were very much as they are now; but the manner of descent, and the accoutrements of the ski-runner, were different. The double ski *stav* (stave), an innovation of the towns, was then unknown, and a single one was considered to be quite sufficient for brake purposes. The legs were also held very widely apart, in order to maintain what was then erroneously considered to be a proper equilibrium. And then, in a crouching position, with his red stocking-cap (now, alas! of the past) drawn down over his ears, the young *bonde* would glide over the lip of a precipitous hill, to *sving* triumphantly past the applauding spectators on the plateau below: or disappear under the *hop* in clouds of snow, out of which a pair of runaway *ski*, like lightning, darted most threateningly. But apart from these prize *hop rends*, the practised *bonde* ski-runner very rarely falls. Born and bred, as it were, on ski, the latter are to him what the horse is to the nomad, and I have never seen a *gaucho*, or a Pampas Indian, fall otherwise than on his feet.

When the Telemarken lads eventually came to town, and showed the astonished *bymand* what might be accomplished on a pair of ski, the latter fell to thinking furiously, with the results that the *bymand* is now not only as good as, if not better than, his *bonde* master, so far as the ski is concerned, but Norwegian ski-resorts, with their ski-running contests, are (*vide* tourist bureaux itineraries) to be found all over the country. But if you wish to see the *bonde* in his native ski element, and desire to study the uses of the ski in the everyday home life of himself and his womenkind, then you must take the steamer from Skien, in Telemarken, to Kirkebö — a half-day's trip, if ice admits — and sleigh up the steeps of Brunkeberg until, in the course of a couple

of hours, you reach the little mountain hamlet of Morgedal.

Strenuous efforts are being made in Norway to divert the stream of foreign ski-lovers, and especially Britishers, from Switzerland to Norwegian winter resorts. It is advanced that there are practically two ski seasons in Norway: the ordinary winter season of the lowland resorts, and the late spring and summer season of the fjeld hospices, such as Finse, on the mountain-railway connecting Bergen with Christiania, where ski-running may be enjoyed as late as July. This advantage is certainly being recognized by our ski-runners, who singly, or in personally conducted batches, have been increasingly in evidence at these resorts during the last few seasons. But if this venture is to be pursued on the same scale as in Switzerland, then Swiss methods must also be adopted. The present hotel accommodation, ample just now, would have to be very much extended; public moneys must be forthcoming for the acquisition and upkeep of the necessary ski-running, bob-sleighing, and skating terrenes; and the said terrenes must be set apart for the exclusive use of the visitor, native or foreign. That the first and even the second provision may be possible of attainment there ought to be little doubt; but that the *bonde*, with his peculiar ideas of *meum* and *tuum*, and his sense of absolute social equality, will assent to the third *sine qua non*, I have my own very decided opinion. And it must be remembered that the *bonde*, as voter and legislator in these matters, is at present a power in the land.

— H. K. Daniels.

A PRACTICAL LESSON IN SKI-RUNNING

You are ready? Then stride out first with one foot, then with the other, keeping the ski parallel and always touching the snow. Absurdly easy, is it not? This is the ski in its utility — you shall presently become acquainted with it as a toy — for you can see after a dozen steps how valuable it must be to people living in the regions of unbroken winter snows. How long would you be crossing such a snow-field as this one afoot? You would be sinking in over your knees at every step, and a whole day of this tiring work would not take you far; but with ski you would find the snow rather a help than a hindrance, and could go farther than afoot over hard ground. Tales come to us indeed from the North of skiers attaining a speed of twenty miles an hour over level snow, but such a performance must require a special condition of snow or of ski or of skiers that is unknown at Grindelwald.

Now you will please to follow me up the side of this last little hill; first diagonally to the left, you see, so as not to slip backward to the bottom. You must learn by experiment at how great an angle your ski are capable of climbing, for this is a quantity varying both with the ski themselves and with the condition of the snow. Hold your pole on the uphill side and use it just like an alpenstock. Here I shall turn to start up on the other tack. Will you watch

me, please? Pole held fixed in the snow behind, where it is out of the way; right foot — always the uppermost foot first — well up and round to the right and planted again so that the two ski are parallel but pointing in opposite directions; left foot, then, well up and round to the right and planted again beside the right and in its normal position; this is all. I change the pole to my left hand and start off in the other direction, while you are executing the same manœuvre after me.

But you are having trouble with it? Most people do at first. It was bad enough bringing your first foot round, but now that you have got it in the proper position you are utterly unable to move either hand or foot without falling? Well, I think if you will take time to find your balance and then raise your left foot high enough, you will be speedily out of your difficulties. There, you see you are in good marching trim at once, and can follow me over to this place, where another turn will put us in the last short stretch to the top. This time it is your left foot first, and remember every inch of your ski.

It is hardly amusing, this skiing upward in monotonous zigzags, but you will often have a great deal of it to do if you wish to find the best runs down. Besides, you have already learned from the summer what the winter will be teaching you over again — that with fine weather in the High Alps much of the uphill work which was at first so laborious gradually loses all its terrors. Habit and ever-hardening muscles soon combine to set for you a regular pace, calling for so little thought or effort as to leave you quite free for the enjoyment of every new point of view.

But we have come at last to the beginning of the end,

which means that, having already learned the use of ski where none of the more usual modes of progression is available, I will now try to show them to you as the vehicle to be preferred above all others. In theory this is the easiest thing in the world; in practice you shall judge of it for yourself.

Before we begin, though, I wish to say a word of encouragement and a word of apology. In the first place, make up your mind that it is impossible to look ridiculous on ski. To tumble in a confused heap with arms, legs, and ski all tied up together; to untangle yourself with great difficulty and find that you are plastered with snow from head to foot: this is the orthodoxy of beginning — nay, it is the *sine qua non*, and people do not laugh at it. But, on the other hand, do not at any time fancy that you could have come up here without me or some other and learned to ski according to your own ideas. Skiing is not like tennis or cricket, in which you can bat about on original lines with fair success. Skiing is more like golf: in learning it you must submit to instructions and not mind being talked down to by your inferiors. It is by no means a difficult art, but there is only one way to begin, and that is, *by rule*. If you began by yourself, you would only waste much time in proving the fallacy of many theories; and by the time you came round to the *rule* your patience would have been more tried than by anything I can say to you. Now I hope we are both ready.

If you will look while I glissade this first slope, there will be only these few things for you to notice and remember: first, that I am keeping the ski always parallel, near together, and even with one another, and my body as erect

as possible in the upper part, but slightly bent at the hips and knees; second, that I am holding the pole behind me at one side ready to be used as a brake at any moment; third, that to stop I shall turn either to the left or to the right, bringing the ski across the line of descent.

Will you please follow, keeping near my tracks but not in them?

Ah, but I fear you were not even trying to stand up straight: you fell before you were fairly started, as if you were disliking the idea of a fall later when you would be going faster. There is absolutely no danger here: you may fall as much as you please in snow like this without ever hurting yourself. Now you are on your feet again.

But your ski start before you are ready? Then you may begin with skiing obliquely across the slope, very slowly, at an easy angle, pole on the uppermost side.

No, the balls of snow on your heels have much less to do with it than you think. By all means knock them off if you like: they do no good there; but to keep your heels from slipping off your ski you must stand squarely on your ski: that is the main thing to remember.

Was this last a crusty bit that threw you? When you come to such places, you must hold your legs very firm and use the pole to counteract the changes in speed. Also when you come to a little hillock in any kind of snow, lean backward slightly and bend your knees more than before, to avoid taking a header.

Yes, you are indeed in a tangle. No way of getting on your feet again? I will come up this time and get you and your ski extricated from each other, but this sort of thing often happens, and with a little patience and a little study

you can always get free. There, you had no need of help after all.

Not making much progress? Five falls, you say, and not yet halfway down this beastly little hill. Well, it is hardly like the performance of the man we saw by the hotel, is it? Nevertheless, all this was to be expected, and our man by the hotel had doubtless the same painful ordeal at the beginning.

Now, when you are ready — no, you are surely not tired, a man who has climbed every high mountain in sight! — will you follow me down the rest of this slope, in the steepest place? "Il faut de l'audace": the whole secret of it is there; "et encore de l'audace, et toujours de l'audace."

That was much better, and you can charge the tumble to me; for, having forgotten to tell you how to guide, I could hardly expect you to get out of the way of so magnetic an object as an isolated tree. Besides, you have just now laid the basis for a reflection that will be of comfort in the future, even though unorthodox; which is that in case of sudden danger ahead you can always avoid running into it by falling. But this is rather a moral tonic than an expedient of any practical necessity. You ought always to accomplish the same result with greater dignity either by going round the obstacle or, if that is impossible, by turning so as to come to a stop. A change of direction is effected by a change of balance accompanied at the same time by a slight turning of the feet so as to bring the edges of the ski into the snow on the side toward which they are to be directed. You may practise it on this gentle slope, where you will not find it at all difficult. When you are going very fast, you will need the pole to help.

There is yet another way of stopping. That is to say,

men pretend to have seen Dr. Nansen come skiing poleless and at full speed over a glacier and stop short on the brink of a crevasse by pressing his knees inward so as to press outward against the snow with the soles of his ski. For my part, I am willing to wait, and begin cultivating this accomplishment when I have something more than hearsay for a guide.

But you are doing exceedingly well; and you are beginning to enjoy it. Yes, that was also to be expected. All you need is practice and experience of snow in different conditions, which will often nevertheless be discouraging for the moment. You will rarely find it so favorable as this, but you will gradually learn to recognize these differences at first sight and to accommodate yourself to them. Come now, and we will take this last long run, then through the gate on the right and down to the road.

Glorious, was it not?

What is it you say? Skiing must have been what?

Oh, invented by an inspired poet. Well, you have indeed got on. I have nothing more to say.

— Daniel P. Rhodes.

From *A Pleasure Book of the Grindelwald.*

CROSSING AN ALPINE PASS ON SKI

THERE is nothing peculiarly malignant in the appearance of a pair of ski. They are two slips of elm wood, eight feet long, four inches broad, with a square heel, turned-up toes, and straps in the centre to secure your feet. No one, to look at them, would guess at the possibilities which lurk in them. But you put them on and you turn with a smile to see whether your friends are looking at you, and then the next moment you are boring your head madly into a snowbank, and kicking frantically with both feet, and half-rising, only to butt viciously into that snowbank again, and your friends are getting more entertainment than they had ever thought you capable of giving.

That is when you are beginning. You naturally expect trouble then, and you are not likely to be disappointed. But as you get on a little, the thing becomes more irritating. The ski are the most capricious things upon the earth. One day you cannot go wrong with them; on another with the same weather and the same snow you cannot go right. And it is when you least expect it that things begin to happen. You stand on the crown of a slope, and you adjust your body for a rapid slide; but your ski stick motionless, and over you go on your face. Or you stand upon a plateau which seems to you to be as level as a billiard table, and in an instant, without cause or warning, away they shoot,

and you are left behind, staring at the sky. For a man who suffers from too much dignity, a course of Norwegian snow-shoes would have a fine moral effect.

Whenever you brace yourself for a fall, it never comes off. Whenever you think yourself absolutely secure, it is all over with you. You come to a hard ice slope at an angle of seventy-five degrees, and you zigzag up it, digging the side of your ski into it, and feeling that if a mosquito settles upon you, you are gone. But nothing ever happens and you reach the top in safety. Then you stop upon the level to congratulate your companion, and you have just time to say, "What a lovely view is this!" when you find yourself standing upon two shoulder-blades, with your ski tied tightly around your neck. Or again, you may have had a long outing without any misfortune at all, and as you shuffle back along the road, you stop for an instant to tell a group in the hotel veranda how well you are getting on. Something happens — and they suddenly find that their congratulations are addressed to the soles of your ski. Then if your mouth is not full of snow, you find yourself muttering the names of a few Swiss villages to relieve your feelings. "Ragatz" is a very handy word and may save a scandal.

But all this is in the early stage of skiing. You have to shuffle along the level, to zigzag, or move crab fashion, up the hills, to slide down without losing your balance, and above all to turn with facility. The first time you try to turn, your friends think it is part of your fun. The great ski flapping in the air has the queerest appearance — like an exaggerated nigger dance. But this sudden whisk round is really the most necessary of accomplishments; for

only so can one turn upon the mountain side without slipping down. It must be done without presenting one's heels to the slope, and this is the only way. . . .

The fact is it is easier to climb an ordinary peak, or to make a journey over the higher passes, in winter than in summer, if the weather is only set fair. In summer, you have to climb down as well as to climb up, and the one is as tiring as the other. In winter your trouble is halved, as most of your descent is a mere slide. If the snow is tolerably firm, it is much easier also to zigzag up it on ski than to clamber over boulders. . . . Our project was to make our way from Davos to Arosa, over the Furka Pass, which is over nine thousand feet high. . . .

We were up before four in the morning, and had started at half past for the village of Frauenkirch, where we were to commence our ascent. A great pale moon was shining in a violet sky, with such stars as can only be seen in the tropics or the higher Alps. At quarter past five we turned from the road, and began to plod up the hillsides, over alternate banks of last year's grass, and slopes of snow. We carried our ski over our shoulders, and our ski-boots slung round our necks, for it was good walking where the snow was hard, and it was sure to be hard wherever the sun had struck it during the day. Here and there, in a hollow, we floundered into and out of a soft drift up to our waists; but on the whole it was easy going, and as much of our way led through fir woods, it would have been difficult to ski. About half-past six, after a long steady grind, we emerged from the woods, and shortly afterwards passed a wooden cow-house, which was the last sign of man which we were to see until we reached Arosa.

The snow being still hard enough upon the slopes to give us a good grip for our feet, we pushed rapidly on, over rolling snow-fields with a general upward tendency. About half-past seven the sun cleared the peaks behind us, and the glare upon the great expanse of virgin snow became very dazzling. We worked our way down a long slope, and then coming to the corresponding hillslope with a northern outlook, we found the snow as soft as powder, and so deep that we could touch no bottom with our poles. Here, then, we took to our snow-shoes, and zigzagged up over the long white haunch of the mountain, pausing at the top for a rest. They are useful things, the ski; for finding that the snow was again hard enough to bear us, we soon converted ours into a very comfortable bench, from which we enjoyed the view of a whole panorama of mountains, the names of which my readers will be relieved to hear I have completely forgotten.

The snow was rapidly softening now, under the glare of the sun, and without our ski all progress would have been impossible. We were making our way along the steep side of a valley with the mouth of the Furka Pass fairly in front of us. The snow fell away here at an angle of from fifty to sixty degrees, and as this steep incline, along the face of which we were shuffling, sloped away down until it ended in an absolute precipice, a slip might have been serious. My two more experienced companions walked below me for the half mile or so of danger, but soon we found ourselves upon a more reasonable slope, where one might fall with impunity. And now came the real sport of snow-shoeing. Hitherto, we had walked as fast as boots would do, over ground where no boots could pass. But now we had a

pleasure which boots can never give. For a third of a mile we shot along over gently dipping curves, skimming down into the valley without a motion of our feet. In that great untrodden waste, with snow-fields bounding our vision on every side and no marks of life save the tracks of chamois and of foxes, it was glorious to whiz along in this easy fashion. A short zigzag at the bottom of the slope brought us, at half-past nine, into the mouth of the pass; and we could see the little toy hotels of Arosa, away down among the fir woods, thousands of feet beneath.

Again we had a half mile or so, skimming along with our poles dragging behind us. It seemed to me that the difficulty of our journey was over, and that we had only to stand on our ski and let them carry us to our destination. But the most awkward place was yet in front. The slope grew steeper and steeper until it fell away into what was little short of being sheer precipices. But still that little, when there is soft snow upon it, is all that is needed to bring out another possibility of these wonderful slips of wood. The brothers Branger agreed that the slope was too difficult to attempt with the ski upon our feet. To me it seemed as if a parachute was the only instrument for which we had any use; but I did as I saw my companions do. They undid their ski, lashed the straps together, and turned them into a rather clumsy toboggan. Sitting on these with our heels dug into the snow, and our sticks pressed hard down behind us, we began to move down the precipitous face of the pass. I think that both my comrades came to grief over it. I know that they were as white as Lot's wife at the bottom. But my own troubles were so pressing that I had no time to think of them. I tried to keep the pace

SKI-ERS DRINKING GOOSEWINE.

within moderate bounds by pressing on the stick, which had the effect of turning the sledge sideways, so that one skidded down the slope. Then I dug my heels hard in, which shot me off backwards, and in an instant my two ski, tied together, flew away like an arrow from a bow, whizzed past the two Brangers, and vanished over the next slope, leaving their owner squattering in the deep snow.

It might have been an awkward accident in the upper field where the drifts are twenty or thirty feet deep. But the steepness of the place was an advantage now, for the snow could not accumulate to any great extent upon it. I made my way down in my own fashion. My tailor tells me that Harris tweed cannot wear out. This is a mere theory and will not stand a thorough scientific test. He will find samples of his wares on view from the Furka Pass to Arosa, and for the remainder of the day I was happiest when nearest the wall.

However, save that one of the Brangers sprained his ankle badly in the descent, all went well with us, and we entered Arosa at half-past eleven, having taken exactly seven hours over our journey. The residents at Arosa, who knew we were coming, had calculated that we could not possibly get there before one, and turned out to see us descend the steep pass just about the time when we were finishing a comfortable luncheon at the Seehoff. I would not grudge them any innocent amusement, but still I was just as glad that my own little performance was over before they assembled with their opera-glasses.

— Arthur Conan Doyle.

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CARRYING MAIL OVER THE ANDES ON SKI

For its general utility on snow surfaces the ski has been carried far from its native Norway; even so far, in these later days, as to the South Pole itself, since the men of Amundsen's successful exploring party were equipped with ski. In South America, even at a latitude of thirty-three degrees south, there was, before the completion of the railroad between Buenos Ayres and the west coast, a government route by which ski-runners carried mail across the Andes over surfaces which might be at one time covered with snow so soft that the runner must have his ski shod with seal pelt, while at another the exposed snags might make it necessary to protect the "palm" of the ski with a plate of horn. Mr. Johannes Wroff Wisby thus describes the route which, in active operation a few years ago, will soon join the "pony express" as a romantic memory.

The Chilian and Argentine governments employ some three hundred expert skimen from Sweden and Norway to take the mails from Valparaiso on the Pacific coast across the Andes to the railroad which delivers them to Buenos Ayres on the Atlantic seaboard. At no time during the entire route do the skimen touch the level of the earth, for the colossal altitudes of the Andes keep them travelling across snow wastes of from 3000 to 18,000 feet elevation above the plains. At no time do they feel the firm earth

under their feet, although huge, jagged rocks and precipitous cañons are among the obstacles they must surmount. They are ever whizzing over soft and receding snow beds which lightly yield like a mammoth buckboard to the swift pass of their fur-lined ski.

It is not always possible for a skiman to tell whether he is speeding across a snow-filled cañon or merely across a tableland covered by but a few feet of snow, or rather he cannot tell until he strikes it, and once into it, there is no turning back; over he must. But it is essential for him to know whether there is a thousand feet of snow under his ski, or merely a layer of a few feet. In the latter case, he can take his time and rest on his ski, knowing that the rock is directly under him, ready to bear his weight even if he were to make a dead stop; whereas, in the former case, it is necessary for him to keep up a stiff pace to get over the heavy deposit of loose snow, into which he would quickly sink to certain death if he slowed his pace. No one who has not seen these hardy skimen of the North, as they pilot their perilous trail across the roughest and most inaccessible ranges of the Andes, can form a real idea of the courage, skill, and strength their onerous duty requires.

In spite of all their daring and experience I do not believe there is a single man among the three hundred mail-carriers of the South American cordilleras who would be able to successfully accomplish the entire run from the Pacific to the Atlantic seaboard, although I fancy many would for a wager venture to try this daring feat. It is hardly possible for a single man to know more than a limited number of miles of the Andes ski route, and there are ranges so difficult and dangerous to locate that a distance of a hundred

miles is sometimes parcelled out for half a dozen skimen to cover. To run the winter mail across the Andes is a much more intricate task than to follow the trail in our Rocky Mountain regions. The skiman cannot follow the mule trail; he must, on every trip, strike out a new route for himself, and the direction of these various routes changes according to the condition of the snow-beds. To-day he may be gliding down a slope which to-morrow he may have to scale, to avoid beating his way across a plateau which in the meantime may have been littered with "snags." The day after to-morrow he may be circling around the cone of some promontory in a downward spiral route, looking for a good jumping-off place, where he never before was obliged to jump. Then he may be storming down upon a plateau rent and partitioned by innumerable chasms and gorges, of which some are and some are not bridged over with ice-floes; and of the latter the majority may be solid enough to bear him, which is likely to encourage his tackling some that are mere crusts of snow-covered ice, liable to burst under him like a pane of glass.

The business of transporting mail across the winter Andes is no sinecure. The mail-pouch is handed out in Valparaiso and carried from relay to relay, one man covering perhaps fifty miles a day, another perhaps only ten, all according to the nature of the route, until after many dangers, and some broken ski, perhaps also a lost skiman or two, it reaches its destination. The idea of using relays was taken from the pony express mail service of our American plains of earlier days. The skimen of the Andes are really more than carriers of mail, for at the small mountain settlements where they stop, they figure as a sort of

circulating post-office, distributing the mail due and receiving the mail of the settlement to other points. In the dead of the Andean winter, when even the hardy condor screams with cold from its eyrie among the summits of everlasting snow, the arrival of the skiman mail-carrier is the only event of interest to which the inhabitants of the mountain settlements looked forward with expectancy and pleasure. Many a Dalar lad from Sweden and many sturdy skimen from the dour "vidder" (wastes) of Norway have emigrated to these regions, allured by the high pay offered, only to find his grave, after a period of untold hardship and peril among the icy chasms of the great and implacable Andes. In those regions life is not valued much, and if a skiman breaks his neck on his solitary trail, he knows he would never be missed, were it not for the mail he is carrying and failing to distribute. With the completion of the great railroad from Buenos Ayres to Santiago (Chili) the skiman of the Andean mail service is passing away; let us therefore take a parting look, as it were, at this, perhaps the most picturesque figure of Andean landscape, before he vanishes from the sight of man forever. He dresses almost as snugly as the Esquimau. The "poncho" or cape, which he dons when carrying the summer mail on mule back, is dispensed with in winter, as it would catch the wind and interfere with his progress. His clothes are tight fitting, and yet ample enough to allow a free movement of the arms and legs. Around the waist a leather belt is strapped, holding a supply of cartridges and a revolver in holster, for although there is no danger of his meeting with robbers in those altitudes, it now and then happens that he is attacked by wild beasts, and even by condors,

which have been known to mistake him for easy prey and swoop on him like thunderbolts. He is very particular about his ski, for upon their capacity to stand the strain of the tramp depends his life. A man with a shattered ski on the Andean mail-route has the same uncomfortable time limit as a man overboard in an ocean gale. The skiman knows this, but he is so hardened to the dangers which constantly surround him that it makes little impression on him. Once the ski are strapped about his feet he has no other thought than how to most skilfully battle the fury of the Andean snow-storms and pilot his mail across the trackless tablelands safely into the hands of the "camerado" who is awaiting him at the relay post.

He starts. Plunging down the slopes of the "cordilleras" or ranges, he keeps his "weather-eye" open for snags in the shape of protruding rocks or blocks of ice. If he makes a severe collision, he knows his journey is finished right there. He fixes his attention upon the dazzling expanse of snow about two hundred yards ahead of him, so as to detect any unevenness in the surface in plenty of time to avoid a clash or a fall. If, nevertheless, the inevitable happens and he finds himself racing full tilt into some blind rock, skilfully hidden by nature under a cover of snow, he resorts to the last and only rescue; he jumps it. When a skiman comes tearing down a mountain slope in this fashion, he has enormous power for long-distance jumping, and he accomplishes feats which in the recounting almost sound like fairy-tales. The great momentum of his downward plunge, accelerated by the motive power exerted by his own ski, send him down the slopes like a projectile from a cannon, and when the time comes for jumping, he bends his

knees, crouches forward, and leaps up into the air. This movement releases his ski from contact with the snow, and he speeds through the air in an ascending curve, balancing his body by the aid of his pole until he again strikes the snow, perhaps a hundred feet away from the spot where he left it. The Andean runner does not jump his tracks unless he is absolutely forced to do it. It is a great tax on his strength, as well as on his nerves, and he is never sure of landing in easy footing. There have been cases where a skiman has jumped to avoid a rock, only to land on the naked ice, shattering his ski to splinters. Then, again, when jumping in a stiff breeze, the force of a sudden blast may harass him so that he loses his balance as he speeds through mid air with his pole in his hands, and he may not succeed in landing on his feet. If he falls thus, fouled by nature, on the rock or on the ice, there is, of course, little chance of his survival; and if he strikes in deep snow, the ski are more than likely to fly off his feet and take an extra excursion of their own a few thousand feet down the cordilleras. Whenever accidents of this kind happen, it is better to be an ass in Valparaiso with four legs and two long ears than to be a heroic skiman in the Andes.

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AN AMERICAN SKI TOURNAMENT

A TYPICAL tournament of the National Ski Association of America was that of 1908, at Duluth, where the Duluth Ski Club is capitally equipped for such an event. Its private grounds, twenty-four acres in extent, is cut by the open ravine through which races Chester Creek.

On its south side a forty-degree incline offered an ideal landing-place for the soaring skier, and there the pine and poplar and birch woods which shade the creek were cleared away for a sufficient distance and a scaffolding built 225 feet long, with a drop of 117 feet to the bump or jumping-off place. From here the natural hill dropped as many feet in the same distance and at the bottom was drawn the "dead line" beyond which a fall would not be counted against the rider. Then came a short quick rise to retard the skier somewhat, though he must still throw his ski sideways or even on edge to stop short of the guide-ropes.

On the right side for a hundred feet 250 seats were reserved for those who wished at a special price to study the ski-jumpers in mid-air. Opposite the lower end of the slide were 1250 seats more. And in the natural amphitheatre of that curve in the hills 125,000 might as easily have been seated with a clear view of the slide from start to finish.

If you have any reason to remember the weather of that year, you know that the lovers of winter sport had hard

work to keep their faith and practice up. The curlers' meet was held up for a week, but before the bonspiel adjourned had played in a temperature of thirty degrees below zero. Then followed a good depth of snow, and in practice jumps records were broken and the interest in the coming meet keyed up to the highest pitch. The society folk of Duluth began to take notice and flamed out in red Canadian blanket suits, French stocking caps, German sox, and Indian moccasins. The color and life of the city roused the elder set to telling of the days some twenty years before when St. Paul was famous for its winter carnivals and ice-palaces.

With the tournament set for Tuesday, Monday scarcely dawned at all; its sun was hidden in mist and fog, and its temperature crowded the freezing-point. By every train the ski riders of Michigan, Wisconsin, and Minnesota were arriving by clubs and singles with faces almost as lowering as the weather. For by noon the city streets were slop and thaw, and although the "anxious watchers on the hills" reported slightly better conditions it seemed scarcely possible that the amateur events could be pulled off at all. The local club was showing its northern pluck, however, and carted enough loads of snow to the chute to give it a fresh layer for its entire length, packed by side-stepping on ski all the way up — and the drop, remember, was 117 feet in a length of 225.

But the temperature steadily rose to forty degrees under an April drizzle. Nothing but postponement was possible, but by this time the excitement had infected the local merchants, who, since the main events of the tournament could not be held on Lincoln's birthday as planned, arranged to close the stores on the following afternoon, if the tem-

perature drop on the way from the Dakotas "blew in" in time. Early Thursday word was sent around that the freezing night had made the iced snow of the slide ideal for the sport. Even a bright sun and another rise in temperature could not spoil this surface, and with the absence of wind made the day equally ideal for the looker-on.

The crowd poured out in thousands to see the most expert of America's ski-riders in the contest of the year. Each of the sixty contestants was given a trial jump to enable him to gauge the condition of the hill, and after that, at about 2.30, all were at the top again to follow down in the order of their numbers as fast as the coast was clear and averaging about twenty-five seconds to a man.

The conditions of the jumping were these: each rider had three runs for the best general average, counting one point for every foot between the spot where his feet struck on landing and a mark set three feet back from the edge of the bump. Touching one hand to the ground before crossing the dead-line incurred a loss of fifteen points; both hands down counted as a fall and cost the rider thirty points. Then from one to twenty points might be added for good form on the slide, in the air, and at the finish.

On the list of entries the names were suggestive: Ole, Olaf, Carl and Tollef, contended with old sturdy Bible names — Reuben, Ephraim, Peter, and John; down near the end of both list and score figured a Mike.

As the sun and the temperature dropped, and the flying ski polished the slide as it froze, a fourth round was given for distance regardless of form. In this jumps of over one hundred feet were common, but no one out-jumped the Red Wing, champion of the year before. Not satisfied to

let the score so stand, the Duluth Club offered a special prize to the winner who would beat it. In spite of fatigue and waning light several returned to the top for one more supreme effort. Among them, John Evensen who had carried off the honors of the Coleraine meet five days before, then saved the day for the home club by high speed and a well-timed jump, from which he glided gracefully to the guide-ropes, holder of what was at that time the highest American record — 116 feet. Three days later the honor went to another Duluth man. But a few days later at Ishpeming, Mich., John Evensen exceeded both records by a jump of 122 feet.

Two other events of the tournament deserve especial mention. The prettiest performance of the day was the graceful double flight of "the two Ole's of Coleraine."

Ole Westgard and Ole Mangseth in gray sweaters and flannel trousers stood hand in hand at the topmost landing. Together they started, riding hand in hand down the chute, and approached the bump with even less concern than if they were leading a grand march on a waxed floor. They jumped with ease, flew with grace, landed with dignity, and then rode to the end, still holding hands, just as though it was the natural thing to do.

The other event outdid for reckless daring anything ever attempted in this or any other country. John Rudd, twenty-four years old, with some circus experience, started down the chute from the middle landing, wearing ski five feet four inches long, two or three feet shorter than the regulation length. He assumed a crouching position from the first and made no effort at a high jump, but seemed to roll from the chute as though on a bowling-alley. In the air

his knees were held tight to his breast and the ski were side by side. With his turn nicely timed the back of the ski touched the hillside first to signal "land in sight" and to help the man when the ski measured their full length on the ground. This trick he turned (literally) four times during the tournament without fear, and apparently with enjoyment. There was some outcry of the danger of discredit from accidents in reckless trick stunts, — but no more dangerous than turning on a fast-galloping horse or in the modern high dive.

— Sumner W. Matteson.

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SKIING RESORTS

The novice on ski will do well to begin his practice at some one of the Swiss resorts where caring for the comfort of the winter visitor is a science as yet beyond most of the innkeepers of Norway. The climate is less trying than that of Norway, and there is little discomfort from the wind, except occasionally when crossing the top of a pass. Davos, Grindelwald, Montana, and Villars-sur-Ollon are famous skiing centres; from quiet Arosa one may take the tour to Davos through the Furka Pass; at Klosters, as at some other Swiss resorts, a southern exposure makes the condition of the slopes unreliable; at Lenzerheide the great attraction of the place is its fine skiing slopes. There one may start on ski from the hotel and find good going to the north, east, or west, while elsewhere, from St. Moritz, for example, the slopes are at some distance. In late December and January many of the Swiss resorts make a week's or a fortnight's festival of competitions in all forms of winter sports, including ski-jumping. After these, if devotion to "the wooden wings of Norway" is still keen, it is in order to visit Christiania and attend the annual games at Holmenkollen, in which the expert ski-runners and ski-jumpers in the world contend early in February. A new record for ski-jumping was made in 1912 by Oscar Gunderson of Chippewa Falls, Wisconsin, who jumped the amazing dis-

tance of 163 feet, 16 feet beyond the distance jumped by the previous holder of the record in Davos in 1910.

Telemarken, famous in the history of Norway's national sport, should be visited, and by the end of March or the first of April it should be possible to wind up the tour by a trip to the Jotunheim without suffering from such intense cold as binds the fiords earlier in the year.

But the traveller whose route lies outside of either Norway or Switzerland need not for that reason forego skiing. From Rome there is hard snow to be found not rarely in the Abruzzo Apennine; if a runner is willing to depend upon the accommodations of the chain of well-equipped huts in the Tyrol above St. Anton, he can make a long-distance tour through almost perfect skiing country in view of the grandest of scenery. It is said to be possible to ski all the year round in the Tyrol, and the many foreigners who winter in Innspruck on account of its schools make frequent excursions by railway to the skiing grounds. There is also a skiing district in the Black Forest in the neighborhood of the Feldberg.

In the United States the National Ski Association of America has actively developed the sport among the hills of Minnesota, Wisconsin, and Michigan. Between thirty-five and forty clubs are included in the association, and annual tournaments are held, usually in February. Duluth, Ishpeming, Chippewa Falls, Coleraine, are all centres for ski enthusiasts.

— *Compiled.*

TOBOGGANING

MEMORIES OF A BOY-TIME WINTER

SATURDAY was always the day of days. Even if two ingeniously industrious parents devised duties and rules to keep one at home the better part of it, there were usually to be had two or three lusty hours of sport. In the spare moments of early autumn we boys had put into working order our bob-sleds. These were built, for the most part, low, broad, and very strong, of oak, ash, or hickory, and were shod by the blacksmith. It took a good bit of rubbing down with glass or ashes to get the iron runners "shiny" and smooth, but after a few trial trips what lightning speed did they achieve! We had never seen "double runners" in those days, and the largest bob could not accommodate more than four or five persons.

Saturday afternoon found us with our bobs — on a long hill which, since it was a main-travelled road, was usually in fine trim for coasting, or "slidin' downhill," as we provincially termed it.

For some unknown philological reason our slide went by the name of "Bob Nick" — an exceedingly suggestive bit of nomenclature, and more characteristic of the doings that took place on its tortuous descent than any I 've ever heard given to a like resort. Halfway down the slope stood a gigantic pine, long a landmark of the section; here

the road accomplished a hair-raising curve. The more timorous souls started at this point to make the coast; but the hardier spirits dragged their bobs clean up to the top, where stood the cemetery in chilly warning, and with a whoop flung themselves down on their sleds and were off. It was the proudest day of my boy time when singly and alone I could steer my bob from the top of the hill down, taking the pine-tree curve in all the arrogance of a sure hand and terrific speed, safely avoid the worst "bumps" and the town pump, and bring up, panting and watery-eyed, a mile away.

We found it more efficacious to guide the sled in the manner known in innocent vulgarity to us as "belly-gut"; and this consisted in picking up the bob with both hands, running for a good start, and then slamming body and sled down together, kicking the road lustily with our copper-toed boots in the efforts to "keep 'er straight."

I have since attempted toboggans and ice-boats and automobiles, — all of which dash about at fearful speed, — yet nothing has ever brought the simple exultation of body and mind that came in the brave, blinding rush of that old red bob-sled down Bob Nick.

On rare occasions, if the moon was full, we were allowed to coast at night. It was wonderful and mysterious. Along the hill were set lanterns and flaring torches. The young beaux were there with their "girls," screaming, shouting, falling from the sleds, and tumbling into great, white, soft drifts. Red-cheeked, bright-eyed girls they were, with high-strung voices that vibrated with their unlimited capacity for perfect enjoyment. The snow sang under the runners; the world was ghostly still and lit with

A TOBOGGAN SPILL

unearthly, bluish light from the vast dome of sky; the speeding sled bore one in a moment from the exuberance of human intercourse to long, dim stretches of awesome silence. There was a daring in it all, a courage; one felt it, but could not speak it. Late — half after ten was tremendously late to us — we went home, half-dazed, chilled to the bone, our legs aching with fatigue.

— EMERY POTTLE.

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COASTING

COASTING terms vary widely in different places. In America the word "toboggan" is limited to the primitive flat glider over either soft snow or crust. In Switzerland, the word is used more generally and may include snow-running on a straight or smoothly winding road-run, or the very highly developed sport which is considered "tobogganing" proper, on specially prepared and costly ice-runs. Snow-running is considered a stage for beginners, a preparatory course for the higher form of sport; on a natural mountain slope, especially one from which it is possible to run out upon the surface of a frozen lake, the flat "Canadian," the type to which alone we apply the word "toboggan," is sometimes seen. More common are the Swiss "luge," much like the American "high sled," upon which the rider is in a sitting position with the feet on a front cross-bar, the low hand-sled on which the coaster lies prone — for this reason called in some states a "belly-bumper" and similar names — known abroad as the "America"; and the bob-sleigh, which is the familiar American bob-sled. The "America" and the bob-sleigh are used on both the snow and the ice-runs; and for the latter there has been devised a coaster called the "steel skeleton" with which, on the Cresta run at St. Moritz in the Engadine, it has been possible to make a speed on the steepest parts of the course of eighty miles an hour. This, be it remembered, is on a winding course and indicates a much faster racing machine

than any which in America or Canada has attained a speed of eighty miles an hour on a straight chute.

The jolliest, most popular form of the sport in Switzerland is coasting on the Swiss luge; no one is too old or dignified at a Swiss winter resort to join a "tailing party," even should one shirk the coasting when the course is reached. "Tailing" is hitching a number of sleds in pairs to a whiffle-tree or behind a sleigh which is drawn by horses. Sometimes the destination is merely the top of a mountain road for the purpose of coasting down; sometimes one's parents and provisions are bundled into a sleigh and the objective point is a mountain hut or a sheltered spot where picnicking is possible. The real fun is in trying to maintain one's place on the sled when the horse is making good speed upon a descent which is also sloping from one side to the other. Sudden changes in grade or a speedier movement on the part of the horse occasionally gives a swing to the "tail," which reminds one of the old game of "crack the whip"; it is fine practice in the art of sitting tight.

Bob-sledding is a strenuous sport in Switzerland, where giant roadsters, carrying as many as a dozen, make terrific speed. One bob-sleigh course, surveyed, graded, and piped for a water-supply, prepared, in short, as carefully as if it were a railway, is said to have cost for its initial construction, quite aside from the expense of putting its snow surface into good condition each year, to say nothing of upkeep, as much as $5000.

In the United States, bob-sledding is chiefly a pastime on country roads; the "flexible flyer" is perhaps in itself a slight advance upon the Swiss luge, but scarcely so appreciated as a funmaker. The "ripper," "clipper," or

"Long John" — names vary widely — is a long, low, heavy sled (its weight contributes to its speed), which is said to be hard to steer but capable of great speed. As a writer in *Country Life in America* describes it: —

"It is usually home-made or carpenter-built. Round steel runners, three-quarters or five-eighths of an inch in diameter, can be made by any blacksmith. They are fastened at the ends to the side-planks of the sled; the ends being flattened, bent over, and punctured by the blacksmith to fit the wooden side-pieces."

If the runner is so curved as to give a spring of from one-half to three-quarters of an inch, it will ride more smoothly over rough places, and absorb a good deal of the jarring which decreases speed. The same writer adds: —

"Three-quarters or seven-eighths oak should be used for the sides, and a half-inch oak board for the seat. Two-by-two oak sticks are not too big for braces, and should be mortised into the sides. Sometimes the sides are over six feet long, as length is supposed to give greater speed, with the seat at the rear end less than three feet long, the front portion of the sled being made firm by stout braces.

"With two of these sleds — a smaller one in front — four brick-shaped blocks and a long heavy plank, the best sort of 'double-runner,' or bob-sled, can be made. The blocks should be fastened firmly to the sled seats and the under side of the plank. The blocks at the rear should be fastened together by means of a hinge, or eye-bolts, while the front sled is furnished with a king-bolt and washers, and the vehicle is steered by ropes in the hands of the front man. Such a bob-sled can be made long enough to hold a dozen or more, and can attain a high speed, after an icy track has been worn on a long straight hill."

There are mechanical devices for braking, but on the straight-away American slopes there is less need of it than on winding artificial runs, and the pegs used in Switzerland by the road-coasters are rarely seen in this country. These are about the size of a policeman's club, with wrist thongs, and one is used in each hand. One end of the peg is sharply spiked and is used for steering; the other end is equipped for braking with a large screw, of which the head forms the brake. On the artificial ice-runs only body-steering is allowed, and nothing more than the "rakes" on the coaster's boots, since any form of mechanical brake would injure the smooth ice-surface. A "rake" is a toe-plate, strongly made, having at the tip six or more sharp, triangular points running nearly an inch beyond the toe. A rider in the necessary prone position can dig either or both toes into the ice at need; but over-indulgence in raking is frowned upon. So great a strain is thrown on the rakes at times that no screws could be trusted to hold the plate to the sole of the boot, and it is usual, therefore, to have a special toe-cap attached. The boots are those ordinarily used for mountain climbing, good and stout, with ice-creepers on the heels and soles.

The rest of the costume may be a loose, thick jersey, warm underwear, with trousers and leggings so in harmony as to securely keep out the snow. On the ice-runs abroad a more elaborate equipment of pads is needed; and any one who intends to make trial of this sport might be wise if he secured — it could probably be obtained through the Palace Hotel at St. Moritz in the Engadine — a copy of the Cresta Handbook for novices.

— *Compiled.*

THE TOBOGGAN

The original toboggan was a primitive Indian affair, built of poles and thongs. The modern toboggan of the United States and Canada is still very simple in principle. It is designed to secure both strength and lightness. It is constructed of simple, narrow, well-seasoned, straight-grained boards fastened together by light cross-pieces. The front end is bent up and over to form the "hood," and fastened securely by means of wire or leather thongs.

Manufactured toboggans are usually from four to nine feet long, and about eighteen inches wide; are usually supplied with cushions and accommodate from one to five persons. One type is made of three strips of wood, each slightly curved on its under surface, reducing the area in contact with the snow so that each practically forms a separate runner. Good toboggans can be bought at prices ranging from $2.50 for a small, cheap affair for a boy, up to $12 for the best eight-foot toboggan. Upon an elaborately made-to-order toboggan even more may easily be spent, but this is for upholstery and finish rather than for the toboggan itself.

In Canada toboggans are used to some extent on soft snow on the hillside, but the iced chutes, where high speed can be attained, are more popular. In making the chute, a natural hillside is generally utilized, though the chute itself is built of wood on trestles. In a few of the most

modern chutes a steel construction has been erected. There are usually four or more parallel tracks, two or three feet wide, separated by wooden or ice partitions a few inches high. These tracks are covered with a sheet of smooth ice by flooding in cold weather. From a platform at the top the toboggans are released, either mechanically or by attendants, and shoot down the descent, which for a few yards is frightfully steep. Gradually the angle of descent becomes less, though the speed is not diminished. The chute is not a straight decline, but is in the form of a concave arc. "Bumps" or hills are often built on the ground, not far from the foot of the chute, to add to the zest of the sport. The best and biggest chutes are supplied with mechanical means for dragging the coasters to the top again.

Tobogganing was a popular sport in Canada long before it gained a foothold in the United States. In the late eighties, however, it became a fad in many parts of the country, and for a few years toboggan chutes proved a good investment. But as a fad it flickered and died, just as roller skating did, and the toboggan chute and the roller-skating rink went out of commission at about the same time. But as a sport neither really died, and tobogganing is being indulged in more and more each winter. Many country clubs, like the Ardsley Club, near New York, maintain toboggan chutes for the amusement in winter of their tennis, golf, and polo devotees.

In some country places, however, where there is no toboggan fad nor toboggan chute, the sport is popular on natural crust or soft snow on long hillsides. Country tobogganing of this sort has features that in some localities make it very popular.

While manufactured toboggans are not expensive, home-made affairs are still less costly. A good one can be made for two or three dollars. A half-dozen strips of cedar or ash, a quarter of an inch thick, three inches wide, and about a foot longer than the desired length of the finished toboggan, form the chief item. The wood should be well-seasoned, perfectly sound, and straight grained. These carefully selected strips should be planed or matched on the edges, and fastened close together by means of transverse cleats of wood half an inch square, with the top corners chamfered. The cleats should be a foot or so apart, and should be fastened on by means of running through the thin strips into the cleats, with the heads on the under side of the toboggan, sunk the merest trifle below the surface of the wood. Cleats should be fixed at the extreme ends of the strips, that at the front end being attached to the under side.

The front of the toboggan must be bent into a hood, and the easiest way for the amateur to do it is to start a hot fire in the range and get up steam in an old-fashioned wash-boiler. The toboggan must be propped up somewhere so that one end can be left in the steam, under the cover, for half an hour. The toboggan must be shifted from time to time so that about two feet of it will be thoroughly steamed.

Now see that the screws are all right, and then fasten the toboggan, right side up, to the workbench or the floor, by placing sticks across it and nailing them down at each end. Have these all ready in advance, for you must work quickly so that the steam won't get all out of the wood. One cross-stick should be placed about two feet from the front end,

TOBOGGANING MADE EASY.

leaving the end free. Now grasp the end cleat firmly, and bend the hood around into shape. It takes some strength and patience, of course. When it has been bent into a semi-circle, or a little more, fasten it temporarily by stout twine or rope to the temporary cross-stick. Then you can take your time in fashioning some permanent fastening, running from the ends of the first cleat to the third, and fastened by screw-eyes. A stout leather thong is perhaps the best fastening.

Now screw a chamfered stick along each side, across the ends of the cleats, for handles, give the whole a couple of coats of varnish or shellac, have a flat cushion made of canvas or old carpet, and the toboggan is done. It will take some time to learn to steer it down a steep hill, without upsetting; but that's half the fun. The steerer sits on his hip at the rear end of the toboggan, steering with his foot as a boy steers a sled. The present fashion on the built slides of Montreal is for three or four people to lie face down on the toboggan, halfway on top of each other, for all the world like a living shingle-lap. The narrowness of these sidebanked chutes reduces the need of steering to a minimum, and the style described is adopted in order that the least possible wind may be caught, the speed be unretarded, and the danger of a throw-off lessened.

—W. A. D.

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A PRIMITIVE COASTER

MOST primitive of all coasters is the small-boy contrivance for the descent of Quebec hills, within the gates and without. To an ordinary barrel-stave he fastens an upright piece of wood some two inches square and from a foot to eighteen inches high, according to the length of his legs. He must be able to touch the ground with his toes in order to steer as he sits upon a cross-piece surmounting the top. Upsets are uncommon, in spite of a high velocity, and a flight of twenty or more of these gamins on the fly at once is a sight for gods — and policemen. A culprit is seldom caught, for he can escape upon his steed, run off with it under his arm or leave it behind — a worthless trophy for the enemy.

— JEAN N. MCILWRAITH.

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TOBOGGANING AS A SPORT

TOBOGGANING as a sport originated on the slopes of Mount Royal; one had to wait, to be sure, for a moonlight night and a good crust on the snow; but on such a night the slopes were alive with sliders on toboggans, bob-sleighs, and sleds, who found in the free-for-all open courses an element of uncertainty and even adventure such as the cut-and-dried sport on artificial high slides can hardly afford. Such a modern slide generally crowns the summit of some slight elevation, and the depth of the drop is graduated by a supporting trestlework. Its width varies according to the number of chutes into which it is to be subdivided. These are practically troughs, flooded and frozen: thus each chute is separated from the next by a ridge of ice. Each chute is so nearly the width of a toboggan that steering is almost unnecessary, the risk of upset and accident reduced to a minimum, and with the danger is gone the sense of daring adventure.

Yet the sensation of breakneck speed remains, and the "drop" on the steep Montreal slide is something appalling. Far beneath lies the hazy outline of the city, but the incline seems (above the drop) only moderately steep. It is only after the start that one realizes that he seems to be approaching the edge of a precipice. There is nothing to do but cling, — and out the toboggan shoots, gaining a momentum

so great that it seems scarcely to touch the earth, and carries one well down on the level stretch of the slide before the rider catches breath as the end of the slide is reached.

— J. C. Allen.

The first snowfall in Canada is an intoxicant. Boys go snow mad. Montreal has a temporary insanity. The houses are prepared for the visit of King North Wind, and the Canadians are the only people in the world who know how to keep warm outdoors as well as indoors. The streets are gay with life and laughter, and everybody seems determined to make the most of the great carnival. Business goes to the dogs. There is a mighty march of tourists and townspeople crunching over the crisp snow, and a constant jingle of sleigh-bells. If you go to any of the toboggan slides, you will witness a sight that thrills the onlooker as well as the tobogganist. The natural hills were formerly the only resort, but some one introduced the Russian idea of erecting a high wooden structure, up one side of which you drag your toboggan, and down the other side of which you fly like a rocket. These artificial slides are the more popular, as they are the easier of ascent, and can be made so as to avoid cahots, or bumps. The hills are lit by torches stuck in the snow on each side of the track, and huge bonfires are kept burning, around which gather picturesque groups. Perhaps of all sports of the carnival this is the most generally enjoyed by visitors. Some of the slides are very steep, and look dangerous, and the sensation of rushing down the hill on the thin strip of basswood is one never to be forgotten.

"How do you like it?" asked a Canadian girl of an American visitor, whom she had steered down the steepest slide.

"Oh, I would n't have missed it for a hundred dollars!"

"You 'll try it again, won't you?"

"Not for a thousand dollars."

— J. T. Bealby.

A PRACTICAL TOBOGGAN CHUTE

THIS toboggan chute was erected early in the winter of 1905 by the Ardsley Club, at Ardsley-on-Hudson, as an experiment. It was built by subscription, and paid for its own maintenance. It added a most exciting sport to the pleasures of winter.

The club grounds include what were once rolling, hilly farms, and the golf links extend over upland meadows and past ancient apple orchards. One of the long, high hillsides has been utilized for the toboggan chute, and two round hillocks or dunes form secondary slopes, which add both variety and speed.

It cost, all told, $1700 to build and equip the Ardsley toboggan chute. This included the actual structure, the toboggans, wiring and lights, and water piping for freezing purposes. This figure is high, because Ardsley is Ardsley. The chute could certainly be built for much less in some places. Members of a less pretentious club might get together and build their own chute. Most of the Ardsley chute is taken down during the summer, especially where it interferes with the golf course, and is stored away in sections in a barn. It costs between $200 and $250 to put it up again and reinstall lights along its entire length.

The chute itself is of the single-track variety, and no toboggan is despatched at the top until the previous one has

left the chute at the bottom. The construction is simple, and for the most part follows the natural contour of the ground. The chief exception is where the chute crosses a deep natural gully, sixty or seventy feet wide, on a trestle. In building it, one-inch boards are used for the most part, and care is taken to have the bed of the chute smooth and free from protruding nails. The bottom of the chute rests on the ground, or is raised a few feet in places to regulate the grade. The sides are a foot high, which is ample to prevent running off the track; brushing against the sides is checked by filling in the corner with a triangular strip of wood. The chute is three feet wide inside.

The slide is toward the west, so that the sun during the winter strikes down from the south along the entire length. A shield of boards about three feet high above the side of the chute, and extending its whole length on the south side, is sufficient to shade the ice during the entire day and to reduce melting to a minimum.

The chute measures 2100 feet in length, and the ground beyond it is kept covered with snow, smoothed down, so that a swift ride of over half a mile is obtained. An apple orchard and other obstructions beyond make it necessary to cover the ground with straw, to check the speed and prevent broken necks. If there were no checks or obstructions the continued slope would send the toboggan clear across the Hudson — or into it.

The start is down a slope of not more than thirty degrees, and yet the speed attained at once is utterly breathless. The level stretch and two slight rises beyond seem to check the toboggan not at all, while the two secondary slopes add perceptibly to the momentum.

The toboggans were bought in Canada. There are twenty-five of them — flat-bottomed, wooden toboggans of the ordinary type. A dozen or more private toboggans are also kept in the club barn, including five modern Canadian racers with steel runners. Only their owners and recognized experts are allowed on the chute with these latter, as their tremendous speed makes them most hazardous in the hands of a tyro.

The cost of running the chute is defrayed by charging seventy-five cents per hour or fraction thereof for the use of the toboggans. This includes the services of attendants, and also of horses and sleigh to haul the toboggans uphill again. A road follows alongside the chute, nearly to the top.

The club secured the real thing for their toboggan overseer — a Canadian who makes tobogganing a business. He has five assistants. All this expense was more than covered last winter by the toboggan rental.

At the top of the chute is a platform with seats and a slightly sloping iced take-off, on which the toboggan is placed while being loaded. The chief function of the attendants is to hold the toboggan while loading up, to see that all skirts and overcoats are tucked in, and that there is nothing loose to catch on the sides of the chute. Then they give a few parting injunctions, shove off, and grin.

Down shoots the loaded toboggan like a streak, out on the level that feels like uphill when you strike it, over the two knolls that feel like extra violent "thank-you-ma'ams," and then out of the chute and on to the snow before you can take your first breath.

The little speech of the man at the top is something like

this — though heaven knows how one is to think of any of it when one feels more like a ten-inch shell than anything else: "Hold tight, don't reach out your hands or stick out your feet. Don't grab the person in front. When you reach the turn at the bottom, lean to the left. If your hat blows off, let 'er blow."

Yes, there 's excitement in the sport, and to the timid it looks dangerous, but it gained new converts every day last winter at Ardsley. If the winter weather is normal, tobogganing is possible almost every day from the middle of November until the early spring thaws come, while the ice pond is unsafe or unpleasant half the time. At Ardsley two hundred persons often enjoyed the sport during a single day. The chute was busiest between 4 and 10.30 P.M.

Of course, the charm of tobogganing, as it is conducted at Ardsley, lies largely in what we are beginning to know as speed-intoxication. And the speed on the Ardsley chute? Well, they hesitate to tell you up there, for fear you won't believe. The figures do seem incredible, and no one can swear by them, because it is so difficult to take the exact time. But the alleged speed — you may take it for what it is worth — is something like ninety miles an hour. That is certainly going, but the men who make the claim look not only honest but solemn and awestruck when they tell you about it. They say that a well-known railroad timer caught the speed for the 2100-foot stretch one day, and found that the all-wooden toboggans did it in from twenty to twenty-six seconds, and that the steel-shod affairs shot from the top to the end of the chute in from fourteen to seventeen seconds.

— Walter A. Dyer.

THE KLOSTERS COURSE AT DAVOS

The chief Davos toboggan run, the Klosters course, is over the last two miles of the highroad, between Davos and Klosters, although when the track is in good condition, a much longer distance can be ridden. As a rule there is plenty of snow during the winter months; sometimes, however, there has been a scarcity of this precious article and the races had to be run on a road coated with ice. Fancy dashing down two miles of this slippery surface at full pace! Those who have not experienced the sensations of tobogganing, or witnessed a race, cannot possibly realize how intensely exciting such a run can be. As each corner is approached, the rider imagines that it must be his last. He feels as if he were being drawn to the side of the track and over the bank by an irresistible magnetic force, and yet he struggles on, while the pace quickens as he rushes down the track of ice, half insensible at times, yet instinctively doing the right thing at the right moment. The first sharp corner is successfully taken. On he flies towards a dreaded zigzag. A few vigorous efforts, a sharp dig with the toe-rake, a moment of fear and expectation, and once more he has the straight road before him. There is no time to think of the past success, for there are more obstacles to conquer. A nasty corner, the sharpest of all, is still to come. Here it is, only a few yards off. His rakes crash

Photograph by American Press Association, New York

BOB–SLEIGHING AT ST. MORITZ

down, a strong muscular effort, a desperate shove, a shuffle, a short moment of suspense, and it is passed like a shot. Now for the final wild rush down the last straight run. A few seconds more, and the last corner is reached. A repetition of the last manœuvre brings him round. Yet a few yards, and he glides swiftly past the winning-post. The cheers of his friends crowding around the finish sound dully in his ears, while for a few seconds he sits exhausted on his skeleton. A minute later, the screams of the excited lookers-on announce the arrival of another man, one of the favorites. At a terrific pace he approaches, but, alas, too quickly; for instead of rounding the corner, he dashes over the side into a heap of snow — such is the fate of even the best of riders occasionally. In 1897, when the Klosters track was coated with ice, Mr. Bertie Dwyer rode the two miles in the splendid time of four minutes thirty-four seconds.

— A. PITCAIRN-KNOWLES.

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THE "CRESTA" RUN AT ST. MORITZ

THE famous "Cresta" run at St. Moritz is considered to be the most difficult course of its kind in the world, and is undoubtedly the most carefully prepared ice course in Switzerland. The run, from five to six feet wide, and 1300 yards long, with a fall of about 180 yards, is formed in the shape of a groove. On either side the snow is banked up, particular care being taken at the curves, where the snow is raked at varying degrees, and the banks thus built up resemble the curve of a bicycle track. The entire run is thus flanked by a wall of hard frozen snow, which at some places is nearly twenty feet high. Where a road crosses the track, the bank is, of course, broken. With the assistance of water and a sharp frost, the track, when thus prepared, is covered with a coating of ice, and the great "Cresta" is ready to receive the eager tobogganers who have come from all parts of the world. It is, of course, neither possible nor desirable to make the track in one straight line; in fact, the great number and the difficulty of the curves form the chief attraction of the "Cresta" to riders as well as spectators. Three particularly interesting parts of the track are "Church Leap," where the rider enjoys his first plunge down a dizzy grade at a terrific speed; "Battledore and Shuttle-cock," two nasty corners close together, about halfway down the run, where the rider experiences

some shaking and tossing; and the great Leap at the end of the run, where the toboggan, if it is travelling fast enough, for a few seconds flies through the air with its occupant clinging to it. This is one of the most exciting moments, even to the ordinary rider, whose leap will probably not be considerable; but what must have been the sensations of the champion leaper, who established the wonderful record of a sixty-six foot jump. It will no doubt be of interest to those who know tobogganing only by hearsay, to know that the speed at this part of the course is sometimes as much as seventy miles an hour. Two well-known riders were once timed over the last fifty yards of the course; they covered it at the rate of sixty-seven miles an hour. The greatest precaution is taken to make sure that the course is clear before a competitor is allowed to start. The starter receives all the necessary communication by telephone and signal bells. Timing is correct to a tenth of a second. The moment a tobogganer passes a certain point at the commencement of the track, his machine breaks through a thread stretched across the course, thereby starting an electric timing-clock, while in the same way the thread at the finish is torn, the current severed, and the clock stopped.

— A. PITCAIRN-KNOWLES.

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TOBOGGANING ON A SWISS GLACIER

I HAD never been in these regions, and their largeness and beauty were a revelation to me when, in the late October afternoon I, with our guide, Herr Leonhard Guler, his boy Christian, and a girl friend of mine, reached the club-huts. We had left Davos in the morning and driven up through the Vereina Thal to Sardasca — a summer alp — where we ate our lunch sitting on the low roof of the now deserted cow-stables. At 2.30 we started upon our walk, and ascended the steep tract, which wound through rocks, scarce tufts of grass, and withering bilberry bushes, into the barren domains of ice and stone above. Our march was a very slow and laborious one, for this reason: Herr Guler who knows these parts well, being a native of them, and a guide and hunter over them, had for a long time past entertained the brilliant and adventurous plan of tobogganing down over a large portion of the Silvretta glacier. As the autumn advanced the surface grew ever smoother and more fit, and he urgently entreated me to join his expedition. I willingly went, rejoicing at the thought of such a novel experience in my favorite sport. Four toboggans had, therefore, to be carried up the 4000 feet. Christian Guler, being a taciturn youth of great determination, shouldered three and started on in front, producing, as he ascended through the alder bushes, a very uncouth effect. His

father carried a fourth, and as few provisions as four strong people could subsist upon for twenty-four hours. The day was hot, and the earth extremely dry after a period of three weeks' brilliant weather. We only halted once; and, for a small diversion, set the hillside on fire. Innumerable little flames ran swiftly over the ground, leaving black tracks behind them. At 4.30 we reached the club-hut. It is a tiny stone edifice — square, with two little rooms, a table, some hay to sleep on, and a most superior iron stove. On this stove we cooked some coffee. We had no milk. The weight of the toboggans had forbidden any needless luxuries. After our coffee we hurried out with a rope and ice-axe to make a hasty survey of the ice-fall which breaks over the cliffs above Sardasca. The glacier was already in shadow then, and a faint reflected glow from the sunset cast strange gray green lights down through the deep crevasses, where the unseen waters gurgled on mysteriously. All the upper peaks, however, glowed still for many minutes with an intense crimson hue. Darkness fell very suddenly, and we were forced to turn in early to the huts. An old white hare bustled likewise home among the boulders. A tin of mock-turtle soup, added to the guide's Mehlsuppe, formed our evening meal. An ancient pack of cards was then produced, and the evening was spent in the thrilling pursuit of "Schwarzer Peter." A shrill wind whistled down over the glacier against the outside walls, but we were warm within, and the light of a single candle cast our shadows round the room. It was a wonderful world of snow and stars upon which we gazed before we went to sleep.

At 3 A.M. we were aroused. The aspect of the sky had greatly changed. The Great Bear had disappeared, but

the brilliant belt of Orion stood directly opposite, and very near the Pleiades. The whole sky shimmered with innumerable lights, and the thin wind blew through the unclouded air, down over the snow, as it had blown all night. Weak black coffee and butterless bread is not an appetizing meal whereof to partake at 3.30 A.M. At least, those who have not won their night's rest on a truss of hay might quarrel with it. I know that I was willing enough to devour the meagre meal. At 4.30 we left the huts, and, by the light of a single lantern, we commenced our march. We were preceded by the lounging form of the imperturbable Christian, who, with his back bowed beneath the weight of three toboggans, and carrying a bundle of sticks under his arm, might, as he walked against the stars, have laid the foundation for many mountain myths. We soon reached the glacier, and there welcomed the faint light of dawn, which now became visible above the sharp black ridge of the Rothfluh. One by one the stars vanished, but the bitter night wind still struggled with the smile of morn and cut against our faces. About half an hour up the glacier we left our lantern and put down the toboggans, for it was now easier to draw them over the snow than to carry them. We then continued our steady march for fully an hour and a half up over the snowfields, stopping about every forty yards to place a stick in the snow, which should guide us on our downward tobogganing course. There was a sprinkling of freshly fallen snow, from two to six inches deep in places, and we trod through this rather sorrowfully, fearing lest it should interfere with our tobogganing projects.

At 7.30 we reached the top of the glacier, and there we left our toboggans, intending to ascend the Pitz Buin. But

an unfortunate incident occurred which greatly frightened and delayed us. My friend, unused to such high altitudes and early rising, complained of feeling faint from cold, and, upon examination, Herr Guler found that her right hand was badly frost-bitten. This entailed fully an hour and a half of continuous rubbing; but, thanks to the sustained exertions of Guler, life was restored to the frozen fingers and we were able to return to the glacier and to our toboggans. Christian and I took our seats at once, and started slowly forward over the first gentle incline. Guler followed in the rear, towing my scarcely recovered friend at a pace which he made as moderate as the steepness of the descent allowed. It was my privilege to ride a very superior race horse; but I soon saw to my sorrow that Christian's progress was much faster than my own, owing to the fact that he carried two alpenstocks, with the help of which he propelled himself successfully forward. So I hastened back to the starting-point, picked up two of our remaining markers, and with these sticks to push me on I rode in pursuit of the fast-disappearing Christian upon that immense expanse of virgin snow.

I can now only relate my own experiences of that memorable ride. Smooth and very slowly at first; then, on a sudden, the runners of my toboggan glided easier — then bounded forward. I realized that I was on the verge of the great Kegel, or rounded summit, of the Silvretta pass. Below me lay the billowy sea of unending white; beyond that again broken bits of moraine; then glimpses of the verdurous Prättigau surmounted by innumerable ranges ending in Tödi and the whole Bernese Oberland. I could not fully realize the superb immensity of that Alpine view. I merely tore off my hat, leant back, lifted my feet, and felt my toboggan

springing forward into space. Then followed the most breathless flight I have ever known. Up dashed the fresh snow into my face, filling my ears, my eyelids, my mouth and nostrils, and plastering itself in upon my chest. All power of controlling my headlong course had banished. I believed I invoked the Deity and myself to stop at once this mad career. Then for a second all consciousness of danger forsook me. I was seized with the intoxication of movement, and hurled forward with closed eyes and lungs choked by the driving snow, which rose in a cloud before me. When I recovered my senses, it was to find myself launched forth upon a gentler slope, and many metres to the left of the assigned course. A few feet in front of me I became aware of an old scar of a crevasse. It was neck or nothing, and I had no energy to stop. I shot across it, and steered out upon the even plain of glacier. I had descended, through the sunlight, in the space of five minutes, a tract of snowfield which it had taken us over an hour to climb at dawn.

Thus ended my ride. Gladly would I repeat it. My companions followed. The tandem was not a speedy affair, and wabbled heavily over the snow. Christian had steered a longer course. His breath, too, was gone. He let his toboggan slip as he dismounted, and it dashed off riderless down to a small frozen lake by the moraine. So he got up behind my sledge, and we went in pursuit.

We returned to the huts to pick up some small possessions, and at five in the afternoon of that same day we reached Davos. We had had a unique experience, and it had been acted on a stage worthy of its charm.

— MARGARET SYMONDS.

TOBOGGANING BY MOONLIGHT

THE memory of things seen and done in moonlight is like the memory of dreams. It is as a dream that I recall the night of our tobogganing to Klosters, though it was full enough of active energy. The moon was in her second quarter, slightly filmed with very high, thin clouds, that disappeared as night advanced, leaving the sky and stars in all their lustre. A sharp frost, sinking to three degrees above zero Fahrenheit, with a fine pure wind, such wind as here they call "the mountain breath." We drove to Wolfgang in a two-horse sledge, four of us inside, and our two Christians on the box. Up there, where the Alps of Death descend to join the Lakehorn Alps, above the Wolfswalk, there is a world of whiteness — frozen ridges, engraved like cameos of aërial onyx upon the dark, star-tremulous sky; sculptured buttresses of snow, enclosing hollows filled with diaphanous shadows, and sweeping aloft into the uplands field of pure clear drift. Then came the swift descent, the plunge into the pines, moon-silvered on their frosted tops. The battalions of spruce that climb those hills defined the dazzling snow from which they sprang, like the black tufts upon an ermine robe. At the proper moment we left our sledge, and the big Christian took his reins in hand to follow us. Furs and greatcoats were abandoned. Each stood forth tightly accoutred, with short coat, and

clinging cap, and gaitered legs for the toboggan. Off we started in line, with but brief interval between, at first slowly, then glidingly, and when the impetus was gained, with darting, bounding, almost savage swiftness — sweeping round corners, cutting the hard snow path with keen runners, avoiding the deep ruts, trusting to chance, taking advantage of smooth places, till the rush and swing and downward swoop became mechanical. Space was devoured. Into the massy shadows of the forest, where the pines joined overhead, we pierced without a sound, and felt far more than saw the great rocks with their icicles; and out again, emerging into moonlight, met the valley spread beneath our feet, the mighty peaks of the Silvretta and the vast blue sky. On, on, hurrying, delaying not, the woods and hills rushed by. Crystals upon the snowbanks glittered to the stars. Our souls would fain have stayed to drink these marvels of the moon-world, but our limbs refused. The magic of movement was upon us, and seven minutes swallowed the varying impressions of two musical miles. The village lights drew near and nearer, then the sombre village huts, and soon the speed grew less, and soon we glided to our rest into the sleeping village street.

It was just past midnight. The moon had fallen to the western horns. Orion's belt lay bar-like on the opening of the pass, and Sirius showed flame on the Seehorn. A more crystalline light, more full of fulgent stars, was never seen; stars everywhere, but mostly scattered in large sparkles on the snow. Big Christian went in front, tugging toboggans by their strings, as Gulliver, in some old woodcut, drew the fleets of Lilliput. Through the brown wood châlets of Selfrangr, up to the undulating meadows, where the snow

slept pure and crisp, he led us. There we sat awhile, and drank the clear air, cooled to zero, but innocent and mild as mother Nature's milk. Then in an instant, down, down through the hamlet, with its châlets, stables, pumps, and logs, the slumbrous hamlet, where one dog barked, and darkness dwelt upon the path of ice, down with the tempest of a dreadful speed, that shot each rider upward in the air, and made the frame of the toboggan tremble — down over hillocks of hard frozen snow, dashing and bounding, to the river and the bridge. No bones were broken, though the race was thrice renewed, and men were spilt upon the roadside by some furious plunge. This amusement has the charm of peril and the unforeseen. In no wise else can colder, keener air be drunken at such furious speed. The joy, too, of the engine-driver and the steeplechaser is upon us. Alas, that it should be so short! If only roads were better made for the purpose, there would be no end to it; for the toboggan cannot lose his wind. But the good things fail at last, and from the silence of the moon we pass into the silence of the fields of sleep.

— John Addington Symonds.

SHIPS OF THE NORTH

LIGHT graceful clouds across the sky
  Are scudding swift to-night;
But fleeter than yon gauze on high
Can flaunt before the moon's full eye
  Our craft career their flight.

Bold privateers, they hurry o'er
  A foamy stretch of sea,
With cargoes loaded precious more
Than fabled stone on ocean floor
  Or wealth of Araby.

Out in the stilly atmosphere
  From their gay decks are flung
The healthy laugh, the ringing cheer,
The mirthful notes, full, sweet, and clear,
  That fall from Beauty's tongue.

Adown the long inclines they glide,
  And over fields below,
Trim vessels with the wind allied,
The playthings of our northern pride, —
  Toboggans o'er the snow.

— WILLIAM T. ALLISON.

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SLEIGHING

KING WINTER IN HIS CITY HOME

HERE is Quebec in winter! Sleighs, sleighs, sleighs everywhere. Here is a long, low delivery sled with a high box; there is a baker's sleigh. Here is one of rough boards for drawing wood. There is a funny little thing with hopper box for hauling away snow from banked-up curve and drifted alleyway. . . . Everywhere the jingle of bells goes merrily on, and everywhere are the marks of winter. Here are half a dozen soldiers from the garrison clad in the regiment's furs. There is a policeman, belted and padded like a Russian. Yonder is a group of children with low, short sleds. Dressed for winter — fur-capped, bright sashed, with pretty buckskin moccasins over their warm red woollen stockings — they tumble in the snow and lose themselves in the banks as though Quebec were Coney Island and snow-drifts were ocean surf. This might be Russia or Sweden so far as furs and sleigh-bells, ice and snow-drifts go. . . . Go out upon a country road to the eastward and you will meet an Indian or a half-breed, with a little sledge drawn by dogs. Stand down about the markets and watch the farmers bringing in their produce. There are sleighs that range from the days when Napoleon was young to the present. Or better still, stand upon the Grande Allée when the moon has risen and watch the passing throng of sleighing parties.

The cariole, its low box filled with furs, is the favorite sleigh. But here and there you catch glimpses of the old order. For Quebec is a conservative town, and her old families are as proud of their ancient origin as of their present culture. And where there is pride in an old order of things there will be ancient relics. So it comes that many a descendant of some distinguished seigneur of Champlain's day has, stored away in his stable, a sleigh of ancient France or one of a pattern copied from St. Petersburg or Stockholm or Switzerland, perhaps. These on frolic occasions are brought forth, and if you watch the drivers dashing merrily along Grande Allée you will catch glimpses of Frontenac's Quebec, and Peter's Moscow, mingling with twentieth century Canada.

The sleighing does not stop with the Grande Allée, nor the Plains of Abraham, nor with Lower town. Out upon the country roads go the carioles — out — out — out. Now a hill — almost a mountain — rises on the left, and now again the St. Lawrence spreads out along the right. Eastward a party goes, and eight miles out from the citadel gate brings up before the little hotel at Montmorency Falls. . . .

All are not sleighing to-night. Back in the city, on foot, by car, and by cariole, you see men and women — athletes every one of them — hurrying to a rendezvous. They are clad in gay suits of many-colored blanket material. They are members of Quebec's snow-shoe clubs. . . . When all are present, away they go from the meeting-place. Out past the city's gates they march; they strike the drifted fields or forests and swing away with the self-reliant stride of the veteran snow-shoer. They tramp perhaps half a

dozen miles. Then comes tea-drinking at some inn or farm-house, and a return through the same stinging, spurring, intoxicating winter air. . . .

But it matters not what may be our point of view. Whether we stand within the rink to hear the click of skates and shouts of skaters, or go out on the streets, where sleigh-bells jingle and the bright snow crackles, or stand where the cruel old stone walls of the citadel meet the historic plains; whether we look down at the sparkling drifts or up at the burning stars, back at the city's lights, or away toward the freezing river, we see winter, we feel winter, and we bow to him as king. But now we know him for a very merry monarch who fills our hearts with song and laughter, as well as a very earnest one who inspires us to feats of strength and courage and floods our souls with the longings of chivalry.

— LEON VANDERVORT.

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THE *CARIOLE* OF THE PROVINCES

The French Canadian habitant is poverty-stricken who does not own at least one horse, which, like himself, works on the farm in summer and takes its playtime upon the winter roads. . . .

The *carioles* of this province (Quebec) are low-set, upon short, broad runners that prevent the body of the sleigh from sinking in deep snow. The horse is harnessed directly in front, and if two are to be driven, they are generally placed tandem on account of the narrowness of the beaten track. Divergence to the right hand or the left may mean a plunge into drifted depths and a floundering out again. Sleigh-riding in one of the high-set, bare-backed skeletons prevalent in northern New York is a slow-freezing process compared to being tucked into a *cariole* that has a layer of straw at the bottom, a blanket to sit upon, another to envelop the passenger, and two fur robes, one for the knees and one hanging over the high back, almost touching the snowy road behind.

—J. H. McIlwraith.

THE WHITE CARNIVAL

THE best city sleighing in the world is to be had in —

You were going to say Montreal or St. Petersburg, and I assure you, you would have been in error.

The prettiest sleighing in the world is to be seen in New York and Paris. The reason is plain as a pikestaff. In St. Petersburg, for instance, sleighing is as much a daily need as bread and butter. It is neither a sport nor a pastime. It is simply a way of getting about. Ivan sledges to market just as the Grand Duke sledges to his club. 'Tis a common thing — as quotidian as a Harlem cable-car, and surely, as Tom Hood's disgruntled maiden said, "There 's no romance in that." Up in Montreal sleighing is as much a part of daily life as warm blankets or a mustard foot-bath. It is not a sport. It is not a pastime. He of Manitoba who hooks up his little Shaginappi ponies for an outgoing on the snow-blinded trail is not looking for pleasure. In other words, where a means of getting about is an every-day necessity, it is never elevated to the dignity of a sport and is, therefore, never furbelowed as a pleasure should be.

In New York the sleighing season is short, uncertain, and fugitive. It is like the carnival. It is looked forward to, and when it comes, the very hours of it are counted. Into the space of a few weeks all the excitement, joy, and outdoor riot of a whole winter must be packed.

And so when the Manitoban mother of cold snaps does her duty — when the snow flutters down from the broad wings of the north wind — when the white carpet is spread from Fifty-ninth Street to the Harlem, it is carnival-tide in New York.

Do you know the White Carnival of New York?

This year it came upon a Sunday. The night had been windy and cold. By midnight, a fine, thin, hard-frozen snow was falling; it came down hour after hour, drifting a bit, but spreading withal a good, white blanket over the avenues and parks. About dawn the flakes became heavier, and the snow packed well. By first-breakfast time the streets were well-mattressed with two layers of snow that the sun was rapidly packing into a perfect frozen roadway; by ten o'clock there was a road of snow, smooth as asphalt, that ran out Fifth Avenue, through the Park, along Seventh Avenue — to the Speedway, to the Harlem, to the old Post Road, whither you would. And New York woke up and took notice. I was abroad myself at that hour (being on my way to church), and I saw it wake up and take notice. It was as though Aladdin had rubbed his lamp. It was as though some spangled princess of fairy-land had waved her wand. Fifth Avenue — that sedate Sunday thoroughfare — was a carnival highway. It was a stream of color and contrast and character. It was a riot of high-steppers and slim, gilt sleighs, of tossing plumes and jingling bells, of furred women and frozen flunkies.

Now, mark you, society had waited for this day. Every preparation had been made. The sleighs stood ready polished; the plumes had been combed out in expectation of the day — the silver bells were duly tuned in fifths;

the coachman and footboy had shaken the moth balls out of their fur caps; everything was ready and when our Manitoban mother of snow gave the signal, the parade started at once.

In Paris the White Carnival lasts not nearly so long as it does in New York. For this very reason, perhaps — because it must be condensed into a few hurried days — it takes on even a gayer air, and becomes more carnivalesque. Last year we had five days of it, but even these days were fragmentary and scattered. Within a few hours the sun that smiled out of the blue Parisian sky would kill as fine a snow-road as heart could desire. So was it that we fought, not for days, but for hours. The rarer the pleasure the keener it is.

He who puts ten or twenty thousand francs into a sleighing rig has a right to seize the flying moment and take his pleasure flamboyantly. And your Parisian does. When he goes sleighing, 'tis somewhat as the frog who would a-wooing go. The sleighing parade that passes from the Arc de Triomphe along the Avenue du Bois de Boulogne into the twining alleys of the Bois is so charmingly symmetrical and so theatrically effective that it might have been stage-managed by David Belasco himself. Passes then the Dowager's brougham on runners — coat-of-arms on the panel, fat, clean-shaven coachman on the box in blue and silver, fat boys jogging on in their bells; passes the Diva, from what opera house I know not — her sleigh is a white swan, with prettily crested neck; the horse, in his harness of white leather and silver is white as the swan; and the Diva is a white-faced thing in white furs — and she passes, questing what Lohengrin I care not. Family sleighs go

by, with red plumes nodding. Yonder comes a gilt boat, swarmed over with gilt cupids. Very naked the plump cupids look in the wintry air. She who sits on the gilt boat and drives the fidgety pair of Belgian hackneys is a New York girl who has married into one of the oldest families in France. And the gilt tub is an heirloom. It was driven over the snowy roads at Versailles in the days of Louis Seize. It was brought out again at Napoleon's winter fêtes. Now, new-gilded, it spins along in the parade of the Third Republic's fashionable mob.

That is what fashion has decreed in these hopelessly democratic days yonder in Paris. It is no longer smart to go abroad in the latest thing from the swagger coach-maker of the Champs Elysées. Just as old furniture is the thing and old tapestry; just as the right kind of girl dances only in the old family laces and the old family jewels; so your real aristocrat goes forth to the White Carnival in the hereditary sleigh. And all this lends a rare picturesqueness to the fugitive hours of Parisian snow-driving. There is more fantasy in it than one sees in New York. Folk who had no grandfathers, or whose grandfathers did not have sleighs, imitate the antique thing as best they can. Thus you see many a pretty fancy in sleigh-making. I remember one that passed last year in the Bois, the steel-shod runners of which were bronze, fashioned like the antlers of a stag, and the body was mere boards, covered with a trailing deer-skin. And then (perhaps because France loves her Russian ally just at present) there were dozens of Russian rigs — three-a-breast, a trotter in the middle, checked high, and a galloping nag on either side. To this limit and a bit further, fantasy runs in Paris when the casual snow falls

and society goes a-carnivaling. 'Twould be pleasant to see New York adopt a trifle of this pompous levity. We lack theatricalism. We go in for speed, but not for show. The uneasy ghost of Gabe Case still hovers over the sleighmen of Manhattan. They still race wilfully for the magnum of champagne, and beside them, as they go, race the spirits of W. H. Vanderbilt and Robert Bonner — driving the wraith of Maud S. The sleighing parade in New York should be the blithest and richest pageant in the world; and some day it will be. And in that promised day we shall see more variety — gayer sleighs, in the designing of which the artist has had a word to say; more tandems, more four-in-hands, more three-a-breasts; in a word, a little more originality and a great deal more opulence. As it is the New York sleighing pageant is second — and not a very good second at that — to the fleeting carnival of Paris.

— VANCE THOMPSON.

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SLEDGING ON THE NÉVSKY PROSPÉKT IN WINTER

It is curious to observe how many opinions exist as to the weather of Peter's city. The officers leave their ears unprotected; passing troop of soldiers — fine, large, hardy fellows — wear the strip of black woollen over their ears, but leave their bashlýks hanging unused on their backs, with tabs tucked neatly under shoulder-straps and belts, for use in the Balkans or some other really cold spot. Most of the ladies, either on foot or in sledges, wear bashlýks or Orenburg shawls over wadded fur caps, well pulled down to the brows. . . .

The head of the fashionable coachman is crowned with a becoming gold-laced cap, in the shape of the ace of diamonds, well stuffed with down, and made of scarlet, sky-blue, sea-green, or other hue of velvet. His fur-lined armyák, reaching to his feet, — through whose silver buttons under the left arm he is bursting with pads for fashion or with good living, — is secured about his portly waist by a silken girdle glowing with roses and butterflies. His legs are too fat to enter the sledges, — that is, if his master truly respects his own dignity, — and his feet are accommodated in iron stirrups outside. He leans well back with arms outstretched to accord with the racing speed at which he drives. In the tiny sledge — the smaller it is the more

THE NÉVSKY PROSPÉKT IN WINTER BEFORE THE DAYS OF ELECTRIC TRAMS

stylish, in inverse ratio to the coachman who is expected to be as broad as it is — sits a lady hugging her crimson velvet shúba, lined with curled white Thibetan goat, or feathery black fox fur, close about her ears. An officer holds her firmly with one arm around the waist, a very necessary precaution at all seasons, with the fast driving, where droshkies and sledges are utterly devoid of back or side rail. The spans of huge Orlóff stallions, black or dappled gray, display their full beauty of form in the harnesses of slender straps and silver chains; their beautiful eyes are unconcealed by blinders. They are covered with a coarse-meshed woollen net fastened to the winged dashboard, black, crimson, purple, or blue, which trails in the snow in company with their tails, and the heavy tassels of the fur-edged cloth robe. The horses, the wide-spreading reddish beard of the coachman parted in the middle like a well-worn whisk broom, the hair, eyelashes, and furs of the occupants of the sledge, all are frosted with rime until each filament seems to have been turned into silver wire. . . .

Court carriages with lackeys in crimson and gold, ambassadors' sledges with cock-plumed chasseurs and cockadee coachmen, the latter wearing their chevrons on their backs; rude wooden sledges, whose sides are made of knotted ropes, filled with superfluous snow, grand ducal tróïkas with clinging harnesses studded with metal plaques and flying tassels, the outer horses coquetting, as usual, beside the staid trot of the shaft horses, — all mingle in the endless procession which flows on up the Névsky Prospékt and out upon the Nevá quays, and back again, to see and be seen, until long after the sun has set on the short days at six minutes to three. A plain sledge approaches. The

officer who occupies it is dressed like an ordinary general, and there are thousands of generals! As he drives quietly along, police and sentries give him the salute of the ordinary general; so do those who recognize him by his face or his Kazák orderly. It is the Emperor out for his afternoon exercise. If we meet him near the gate of the Anitchkoff Palace, we may find him sitting placidly beside us, while our sledge and other sledges in the line are stopped for a moment to allow him to enter.

Here is another sledge, also differing in no respect from the equipages of other people, save that the lackey on the low knife-board behind wears a peculiar livery of dark green, pale blue, and gold (or with white in place of the green at Eastertide). The lady whose large dark eyes are visible between her sable cap and the superb black fox shawl of her crimson velvet cloak is the Empress. The lady beside her is one of her ladies-in-waiting. Attendants, guards, are absolutely lacking, as in the case of the Emperor.

Here, indeed, is the place to enjoy winter. The dry, feathery snow descends, but no one heeds it. We turn up our coat collars and drive on.

— Isabel F. Hapgood.

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THE SLEDGES OF MOSCOW

RUSSIA in the summer is no more like Russia in the winter than a camp in time of peace is like a camp in the presence of the enemy.

There are generally at least two heavy snow-storms by way of warning before winter fairly commences its reign. The first fall of snow thaws perhaps a few days afterwards, the second in about a week, the third in five months. If a lady drops her bracelet or brooch in the street during the period of this third fall, she need not trouble herself to put out handbills offering a reward for its discovery, at all events not before the spring; for it will be preserved in its hiding-place as well as ice can preserve it until about the middle of April, when, if the amount of the reward be greater than the value of the article lost, it will in all probability be restored to her. The Russians put on their furs at the first signs of winter, and the sledges make their appearance in the streets as soon as the snow is an inch or two thick. Of course at such a time a sledge is far from possessing any advantage over a carriage on wheels; but the Russians welcome their appearance with so much enthusiasm, that the first sledge-drivers are sure of excellent receipts for several days. The droshkies disappear one by one with the black of autumn; by the time the gilt cupolas of the churches, and the red and green roofs of the houses, have been made whiter than their own walls, the city swarms with sledges. It is not, however, until near Christmas, when the "frost

of St. Nicholas" sets in, that they are seen in all their glory. The earlier frosts of October and November may or may not be attended to without any very dangerous results ensuing; but when the frigid St. Nicholas makes his appearance, — staying the most rapid currents, forming bridges over the broadest rivers, and converting seas into deserts of ice, — then a blast from his breath, if not properly guarded against, may prove fatal.

It has been said that it is not until the *Nikolskoi Maros*, or frost of St. Nicholas, that the sledges fly through the streets in all their glory. By that time the rich "*boyars*" (as foreigners persist in styling the Russian proprietors of the present day) have arrived from their estates, and the poor peasants, who have long ceased to till the ground, and have now thrashed all the corn, begin to come in from theirs; for humble and dependent as he may be, each peasant has nevertheless his own patch of land. For the former are the elegant sledges of polished nut-wood, with rugs of soft, thick fur to protect the legs of the occupants, whose drivers, in their green caftans fastened round the waist with red sashes, and in their square, thickly wadded caps of crimson velvet, like sofa-cushions, urge on the prodigiously fast-trotting horses, at the same time throwing themselves back in their seats with outstretched arms and tightened reins, as though the animals were madly endeavoring to escape from their control. The latter bring with them certain strongly made wooden boxes, with a seat at the back for two passengers and a perch in front for a driver. These boxes are put upon rails, and called sledges. The bottom of each box (or sledge) is plentifully strewn with hay, which after a few days becomes converted, by means of

snow and dirty galoshes, into something very like manure. The driver is immediately in front of you, with his brass badge hanging on his back like the label on a box of sardines. He wears a sheepskin; but it is notorious that after ten years' wear the sheepskin loses its odor, besides which it is winter, so that your sense of smell has really nothing to fear. The one thing necessary is to keep your legs to yourself, or at all events not to obtrude them beneath the perch of the driver, or you will run the chance of having your foot crushed by that gentleman's heel. Sometimes the horse is fresh from the plough, and requires a most vigorous application of the driver's thong to induce him to quit his accustomed pace; but for the most part the animals are willing enough, and as rapid as their masters are skilful. The driver is generally much attached to his horse, whom he affectionately styles his "dove" or his "pigeon," assuring him that though the ground is covered with snow there is still grass in the stable for his *galoupchik*, as the favorite bird is called, etc., etc.

As for the real pigeons and doves, they are to be found everywhere, — on the belfries of the churches, in the courtyards of the houses, in the streets, blocking up the pavement, and above all, beneath the projecting edges of the roofs, where you may see them clustering in long, deep lines, like black cornices.

At home we associate snow with darkness and gloom; but when once the snow has fallen, the sky of Moscow is as bright and blue as that of Italy; the atmosphere is clear and pure; the sun shines for several hours in the day with a brightness from which the reflection of the snow becomes perfectly dazzling; and if the frost

be intense, there is not a breath of wind. The breath that really does attract your notice is that of pedestrians, who appear to be blowing forth columns of smoke or steam into the rarefied atmosphere, and who look like so many walking chimneys or human locomotives. And if breath looks like smoke, smoke itself looks almost solid. . . .

The most pleasant time of the whole winter is during the moonlight nights when the wind is still and the snow deep on the ground. In the streets the sparkling trottoir, which appears literally paved with diamonds, is as hard as the agate floor of the Cathedral of the Annunciation in the Kremlin. In the country, where alone you can enjoy the night in all its beauty, the frozen surface crunches, but scarcely sinks, beneath the sledge, as your tróïka tears along the road as fast as the centre horse can trot and the two outsiders gallop. For it is a peculiarity of the tróïka that the three horses that constitute it are harnessed abreast; and that while the one in the shafts, whose head is upheld by a bow, with a little bell suspended from the top, is trained to trot and never to leave that pace, however fast he may be driven, the two who are harnessed outside must gallop, even if they gallop but six miles an hour; though it is far more likely that they will be called upon to do twelve. Lastly, the tróïka must present a fanlike front; to produce which the driver tightens the outside reins till the heads of the outriggers stand out at an angle of forty or fifty degrees from that of the horse in the shafts. At the same time the centre horse trots with his head high in the air, while the other two, who have their existences devoted to galloping, have their noses depressed toward the ground, like bulls running at a dog.

SLEDGING WITH THE "PRISTYAZHKA" OR SIDE HORSE.

There may be enough moonlight to read by when the moon itself is obscured by clouds. But if it shines directly on the ermine-like snow, which covers the vast plains like an interminable carpet, the atmosphere becomes full of light, and the night in its brightness, its solitude, and its silence, broken only by the bells of some distant team, reminds you of the calmness of an unusually quiet and beautiful day. As you turn away from the main road toward the woods, you pass groups of tall slender birch trees, with their white silvery bark, and their delicate, threadlike fibres hanging in frozen showers from the ends of the branches, and clothing the birch with a kind of icy foliage, while the other trees remain bare and ragged. The birch is eminently a winter tree, and its tresses of fibres, whether petrified and covered with crystal by the frost, or waving freely in the breeze which has stripped them of their snow, are equally ornamental. The ground is strewed with the shadows of the trees, traced with exquisite fineness on the white snow, from which these lunar photographs stand forth with wonderful distinctness. To drive out with an indefinite number of tróïkas to some village in the environs, or to the first station on one of the Government roads, is a common mode of spending a fine winter's night, and one which is equally popular in Moscow and St. Petersburg. These excursions, which always partake more or less of the nature of a picnic, form one of the chief pleasures of the cold season. Of course such expeditions also take place during the day, but, whatever the hour of departure, if there happen to be a moon that night, the return is sure not to take place before it has made its appearance.

— H. Sutherland Edwards.

SLEDGE-POSTING IN SWITZERLAND

Behold us starting for our thirteen hours' sleighing journey, wrapped from head to foot in furs! It is about half-past six on a cold gray morning, the thermometer standing at three degrees Fahrenheit, a sombre canopy of mist threatening snow, and the blue-nosed servants of the watering-place torpidly shivering back to their daily labors like congealed snakes. Davos-Platz does not look attractive at this hour of a winter morning, when the chimneys of the big hotels and bakehouses are pouring forth spirals of tawny smoke, which the frozen air repels and forces back to blend with vapors lying low along the stream. Tearing through the main street on such occasions, I always wonder how long what boasts to be a "Luft kur-ort," or health resort, depending on the purity of air for its existence, will bear the strain of popularity and rapid increase.

As we break away into the open country these gloomy thoughts are dispelled. For now the sun, rising behind the mountains of Sertig in gold and crimson, scatters the mist and gives the promise of a glorious day. Spires and pinnacles of burnished silver smite the flawless blue of heaven. The vapor clinging to their flanks and forests melts imperceptibly into amber haze; and here and there broad stripes of dazzling sunlight turn the undulating snow-fields round our path to sheets of argent mail, thickly

studded with diamonds — crystals of the night. Every leafless larch or alder by the stream-bed is incrusted with sparkling frost-jewels, and the torrents, hurrying to the Rhine, chafe and foam against gigantic masses of gray-green ice, lipped with fantastically curving snow-wreaths. We are launched on the intoxication of a day-long sledge drive. Hour after hour passes with no change but the change of postilions and horses, occasional halts at wayside inns, and the ever varying pageant of the frozen landscape unrolled around us. . . .

The snow-tracks which cross the higher passes are very narrow; and for this reason little low open sledges drawn by one horse are commonly employed. The sledge is a box, shaped somewhat like a car in a merry-go-round, into which a pair of travellers are shut by means of a wooden frame or lid moving up and down on hinges. This lid rises to the breast of a seated person, and protects his legs from falling snow. The upper part of his body is exposed. When the sledge upsets, which is not unfrequently the case, the whole falls quietly upon one side, and discharges its contents. The wooden frame or lid, being movable upon its hinges, enables a man to disengage himself without difficulty. The driver stands upon a ledge behind, passing the reins between the shoulders of the passengers. There are no springs to the vehicle, which bumps and thumps solidly in the troughs of the road, dispelling all illusions as to the facile motion of a sledge. If it is needful to pass another vehicle, the horse plunges up to his belly in soft snow upon one side, then struggles furiously, gains his feet, and lifts the sledge with quick spasmodic effort to the beaten track again. These sledges carry no luggage. A second horse is used, who

follows close behind, and draws a truck on runners laden with all kinds of baggage. He has no driver; and the result is that these luggage sledges frequently upset. It is always safest to travel with the post in winter, because the horses know each yard of the road from one stage to another. But a nervous traveller may even thus be exposed to trials of his courage; for economy makes the postmaster provide the smallest possible number of postilions, and passengers are sometimes sent across a mountain in a sledge without a driver, following the sledge in front. I once crossed the Julier in a dark night of January, without a postilion and without any reins to guide the horse by. My reason told me that the beast knew his business better than I did. But, none the less, I felt forlornly helpless when he was floundering about in depths of snow I could not realize. It is always best to take things as they come, however; and I comforted myself by reflecting that even an Englishman is a parcel which postmasters are bound to deliver safely at its destination.

Some of the pleasantest days of my life have been spent in these post-sledges on the passes of Graubunden. The glory of unclouded sunlight, the grimness of storm, and the mystery of midnight among the peaks of Albula, Fluela-Julier, Bernina, Maloja, Splugen, Bernhardin, are known to me through them. They are not luxurious; but I can recommend them with authority in preference to the stuffy, top-heavy, closed carriages on runners which the inexperience of foreigners is now bringing into fashion. Though I have been out in very bad weather in these open sledges I never took any harm. The following notes of a day's journey on March 13, 1888, show that the risk of catching cold may

be considerable; yet I would back myself to catch cold in a German or Swiss railway-carriage more easily at the same season of the year. "I drove in an open sledge from Landquart to Davos, about nine hours, while it snowed incessantly, thick, wet snow, very soft and sweet to breathe in, lovely on the woods of beech and pine, fantastic on the blue-green frozen cataracts. A dreamy day of long, gray, pearly distances, snow-laden orchards, hamlets slumbering in snow, and tall fir forests drooping their snow-laden branches over me. My outer garments were soaking wet; fur cap and hair too. When we reached Laret, these wet things began to freeze. When we reached Wolfgang, a mighty blast tore snow from the meadows and whirled it round us, chilling me to the marrow. When we arrived at Davos-Dörfli, I was harnessed in solid mail of ice, and my forehead bristled with icicles."

In the winter of 1887–1888 I undertook many short journeys with the view of inspecting the unusual phenomena of avalanches. The most interesting of these was the last, when I left Davos with one of my daughters for Italy by the routes of Landwasser, Julier, and Maloja. We set off at 6 A.M., under a clear, frosty sky, upon April 5. Owing to Föhn-wind and constant traffic the snow-road was broken into deep ruts and holes, which made our sledges leap, jump, bump, buck, lurch, and thud in ways quite indescribable to those who have not experienced the process. The luggage-sledge behind upset three times in the course of the first five miles. I have seen nothing in the Alps which impressed me so strongly with the force — the cruel, blind force of nature — as the aspect of the Züge on that April morning. Avalanche upon avalanche had been

pouring down into the valley from 3000 feet above. The stream was buried beneath Staub-Lawinen, Schlag-Lawinen, Grund-Lawinen, to the depth of scores of feet. Here and there the torrent burst with clamorous roar from the jaws of one dark icy cavern only to plunge again into the silence and the blackness of another yawning mass of desolation. Millions of tons of snow, of uprooted rocks, and of mangled forests were lying huddled together, left to rot beneath the fretting influence of rain or south winds, slowly losing dignity of outline and substance in a blur of mottled, besmirched, pitted hideousness. Here there was a tunnel in the cliff, festooned with frozen stalactites, and clogged with the débris of ice dislodged by its own weight from the dripping roof. There the walls of marble snow, where excavation had been made in avalanches, rose to a height of twenty feet above our heads. Next came a horrid Grund-Lawine, filthy, cynical, with its wreck of stones and rubble, gnawed stems, shattered parapets, and snapped telegraph-posts. Over these we had to crawl as well as we could; the horses could only just contrive to get across the ridged deluge, climbing and descending, climbing and descending, on narrow tracks delved by the road-makers. These tracks are encumbered with enormous blocks of limestone and round boulders, which fall independently of avalanches from the scars left by avalanches on the heights above. And always rocks rolling in the ravines with a sullen roar; always the snow-slips shifting on the cliffs around us; always, from time to time, the sullen clamor of the maddened torrent as it leapt from one black cavern to another. There are several tunnels pierced in the living rock, and just before the mouth of the last of these, a Grund-Lawine

had fallen two hours earlier. It had carried away the road and parapets, depositing a sharply inclined slope of snow and dirty débris in their place. This we clambered over as well as we could, on foot. The horses, helped by their brawny drivers, had great difficulty in dragging the sledges across its uneven treacherous slope, which extended in a straight line to the stream-bed twenty yards below. The whole ravine left a sad and horrifying impression of mere ruin on the mind — nature-forces spending themselves in waste, acting now as they have acted for past millions of years, blindly clashing together, apparently with no result except destruction, certainly with no regard for man's convenience, and still more certainly with serious imperilment to human life. Yet we must not forget that these deluges of snow have their beneficent aspect. By relieving the upper regions of the Alps of their accumulated burdens, they prevent the snow of exceptional winters from forming into névées, which would sooner or later settle down as glaciers, covering the central chains, and altering the climate of the whole country.

I was glad to emerge from the Züge and to gain those larch woods on the way to Wiesen, from which a distant and glorious prospect may be enjoyed of the pure mountain summits glittering in morning light. To think that those calm tracts of silver snow, so exquisitely moulded into peaks and "finely pencilled valleys" above their sombre pine woods, should be responsible for all the havoc and the horror of the Züge!

I shall not dwell upon the next stages of this day's journey, which were performed in carriages; for the snow had melted on the post-road from Wiesen to Tiefenkasten and

halfway up the Julier. The evidences of damage caused by avalanches were interesting, but need not be recorded. It began to snow when we approached the village of Schweiningen. Enormous flakes swirled lazily and heavily through still, gray air. As I caught them against the blackness of the pine woods, they looked like a countless multitude of Apollo butterflies. The flakes were hardly less in size, and had the same clumsy, helpless flight. From this time forward snow fell more or less continuously till the end of our long journey. Just below Mühlen we crossed an avalanche, which had cut its track out of a forest of young pines and larches. The section through which we passed revealed on both sides a compact mass of stems, sawn through to make the road. There was more of solid wood than snow, and the damage must have been mainly caused by the Lawinen-Dunst.

At Mühlen we had to take an open sledge again. Here, as the day was drawing to its close, I doubted whether it was prudent to fare forward in the whirling snow. But there is fascination in completing journeys once begun; besides, we wished to cross the Julier before the snow could mound us up and stop our going. So we called fresh horses, and went forth into the twilight. The evening slowly dwindled, while we jolted, lunging and lurching, along the troughed and deeply cloven road to Stalla. Imagination quails before those bumps and jumps. They threw the horse upon his knees, ourselves upon our faces in the sledge, and the driver from his stand behind it. At Stalla there was the opportunity again of resting for the night. But the same impulse swayed us now as before at Mühlen. Our spirits rose, while the sleet fell thickly and the wind

wailed grimly, at the thought of threading those mysterious snow-ways of the pass in darkness. Onward, then, we drove, silencing the postilion, who more than recommended the wisdom of a halt. Night closed round, and up we travelled for two hours, at a foot's pace, turning corners which we could not see or feel, exploring trackless wastes of drift, with stinging snow-shafts on our faces. The Hospiz was reached at last; and here we had a third chance of suspending our journey and resting for the night. Imagine a hut of rough-hewn stone, crowded with burly carters, swarming out to greet us by the light of one dim lantern. Over the roof of the hovel surged the mounded snow, and curved itself in billowy lines of beauty — like the breasts, I thought, of Amphitrite's nymphs, as Pheidias might have moulded them — above those granite eaves. The carters emerged from a cellar, as it seemed, climbing up six feet of snow by steps cut out to reach the level of the road. As they stood in the doorway, stalwart fellows clad in shaggy serge, like bears, the snow-wreaths curling from the rafters touched their hairy heads. I had no adverse mind to staying there and fraternizing with these comrades through a winter's night. Nor did I fear for my daughter's comfort. I knew that she would be well; our beds, though cold, would certainly be dry. Winter on the tops of mountains has this merit, that damp can find no place there. And the hearts of mountaineers, beneath their husk of roughness, are the hearts of gentlemen. But the impulse to fare forward, the dreamlike sense of something to be blindly done, the more practical fear that we might be snowed up for days in this frost-bound "cave of care," bade me order out fresh horses. They were ready at my

call, for we were travelling extra-post, and the telegraph-wires, though drowned in snow, discharge their messages. I liked the new postilion. I did not fancy the horse which was harnessed to our sledge. He was a tall, lean chestnut; and chestnuts, as I know by experience, are apt to feel impatient if they get embarrassed in deep snow. As the sequel proved, I made a false shot; for this chestnut showed himself up to every trick and turning in the road we had to follow. Another horse was yoked to the luggage-sledge behind us, then left to do as best he could, without a driver — such is the custom on these mountains. He did his best by following the beast in front. I cared little about luggage at that moment; what I wanted was to arrive at Silvaplana safely with my daughter.

The descent from the Hospiz was grimly solemn and impressive. Passing from the friendly light of that one stable-lantern, we now entered the dim obscurity of dreamland — a mist of whirling snowflakes, driven onward by the wind which grew in violence. It is never wholly dark upon the snow; but the lustreless pallor of the untracked wilderness, fading off on every side into formless haze, and the complete effacement of all objects to which the sight is accustomed in these regions, are peculiarly trying to eyes and nerves. Here and there we could perceive the tops of black stakes and telegraph-posts emerging from the undulating drift. Here and there for considerable intervals they were completely hidden. As these posts average thirty feet in height, some conception of the snow-depth may be formed. There were also, at times, a faint suggestion of impending crags and masses of black rock, on this hand or on that. Like the hulls of vessels seen through

Photograph by Underwood & Underwood, New York

MRS. ASQUITH IN A TAILING PARTY AT ST. MORITZ

fog at sea, they swam into sight and shrank out of it again phantasmally. Nothing more was visible; nothing on which the sense of sight could seize for comfort and support. The track was obliterated, buried in fresh-fallen snow and storm-drift. Everything seemed changing, shifting, yielding to the uniformity of elemental treacherousness. The winter road upon the Julier plunges straight downward, cutting across the windings of the summer post-road, which lies with all its bridges, barricades, and parapets five fathoms deep below. At one spot, where absolutely nothing appeared to indicate the existence of a track, the postilion muttered in our ears, "Now we must trust to the horse; if he misses, it is over with us — *es ist mit uns um.*" The reins were laid upon the chestnut's shoulders, and he succeeded in feeling, scenting out the way. Pausing, sounding at each step with his fore feet, putting his nose down to smell, sometimes hardly stirring, sometimes breaking into a trot for a few seconds, then coming to a sudden halt again, then moving cautiously as though in doubt, he went, with interruptions, forward. The sledge-bells had been left behind at the Hospiz for fear of avalanches; their tinkling or the crack of a whip suffices in such weather to dislodge a snow-slip. The other horse with the baggage-sledge followed behind, attending eagerly to every movement of his comrade. And so we passed silently, glidingly, mysteriously downward into the gulf of utter gloom, without making the least sound. The only noise we heard was the eldritch shrieking of the wind, and a horrible æolian music from the telegraph-wires close at our ears. We could touch these wires with our fingers when they were not buried in snow, and they thrilled with a sharp metallic

shudder like the voices of banshees or lost wailing women, uttering shrill threats and curses, murmuring their drowsy runs of doom. Sometimes we ascended avalanches, and there there was black vacancy and utter silence — every object huddled in ruin, and the path smoothed out by softly curving wreaths. The horse was up to his belly in unwrinkled drifts. Only through changes of movement in the sledge did we know that we were climbing steeply up or plunging perilously down. On the dizzy top of one of these avalanches it happened that the clouds above us broke, and far aloft, in a solitary space of sky, the Great Bear swam into sight for a few moments. This little starlight was enough to reveal the desolation of the place, and the yawning chasms on our right and left. I knew by experience how narrow, how high-uplifted, is the thread of traversable pathway in such passages. A false step to this side or to that would plunge us into oceans of soft smothering snow from which in darkness we could not hope to extricate ourselves. Yet the two brave horses kept the track. Ursa Major was swallowed up in mist again. The wind rallied with fierce clutching grasps, while we cautiously descended from the avalanche and resumed what must have been the winter road, although we could not see or feel it. Just then cembras began to show their dark masses on the cliffs, and something more sombre even than the night loomed far ahead before us. The cembras told me that we were nearing Silvaplana, and the obscurity in front must surely be the bulk of the Bernina group beyond the Engadine. Courage! We shall soon be under shelter! But, even as I said these words, the whirlwind scooped the snow again in blinding drifts around us, and the telegraph-

banshees shrieked with redoubled spitefulness: "Come away, come away to us! Come and be buried as we have been! Come and be dammed in the prisons of frost with us! The wind that makes us croon our weird song shall wind the snow-wreaths over you!" That was not to be our destiny, however; for, after jolting through another avalanche, the excavated walls of which touched our sledges on each hand, we made a few sharp turns, saw lights ahead, and came lurching into the little street of Silvaplana opposite the hospitable "Wilde Mann." We had been driving for fourteen hours over every conceivable kind of road, — rough, broken, precipitous, trackless, — and we were glad enough to get a late supper and a warm bed. In this account of a night passage of the Julier I have not spoken about cold or exposure to weather. Indeed, we did not think about these things, nor did we suffer from them. Of course we were snowed over, and almost throttled sometimes by the wind. But cold is little felt on mountain passes when the air is dry and the traveller wears proper clothing.

— JOHN ADDINGTON SYMONDS.

THE NORWEGIAN *SMALSLŒDE*

A MUFFLED city is Christiania in winter under the new-fallen snow in which the passers-by come and go with the uncanny silence of the figures of a moving picture; every one is shod with rubber knee-high shoes or even longer boots of fur and leather. To a stranger the electric car's jangling bell is heard for the first time with a curious sense of relief, as the one natural sound in that deadly stillness. The aspect of the traffic in the roadways affects the eye with a sense of strangeness, too; every vehicle seems strangely dwarfed, for the bodies of all carriages, carts, and even drays have been lifted from the wheel axles and dropped upon runners so low that they almost seem to be sliding along the ground.

From such a city one is glad to escape to the mountain forests of the Telemarken in spite of the exclamations of dismayed acquaintances who all predict a bad end to the journey, but are not able to agree as to whether one is to be lost in a snow-drift, frozen to death, or devoured by wild beasts — hungry bears or prowling wolves. Nevertheless, after a none too comfortable ride on the railway, it proved to be quite possible, by putting on fur after fur, and being wrapped (personal action by this time was quite out of the question) in blanket after blanket, to roll into the back seat of an all too narrow sleigh. This was drawn by a

sturdy little pony which the driver was supposed to guide, but which from the first took the whole matter of going or stopping under its own control, and seemed to realize that something was due the curiosity of a crazy foreign visitor, — else why should he have so obligingly halted to give me my first close view of the Norwegian national sleigh, as distinctively his as the *cariole* is the conveyance of the Quebec habitant. This *smalslæde* consists of a skeleton framework in the shape of a pyramid, at the point of which perches a bicycle saddle for the driver (also the sole passenger) who rests his feet on the runners. An essential part of the outfit is the pair of boots which the rider wears, of thick fur-lined leather, reaching to the thighs under the heavy wolfskin overcoat of the wearer. For stability, doubtless, these boots have soles of iron instead of leather. In some cases there is under the saddle in the space between the spread of the runners a frame for the carrying of the smallest possible load of luggage.

Altogether it was a strange contrivance, but apparently in quite general use, for long after we had reached our inn above the loveliest lake in Norway, I could look down into the snow-covered valley and watch the farmers hurrying across the frozen lake upon them toward the tiny wooden cottages perched like brown toadstools on the snow-clad rocks.

— Mme. von Thiele.

BRINGING LORNA HOME

To my great delight, I found that the weather, not often friendly to lovers, and lately seeming so hostile, had in the most important matter done me a signal service. For when I had promised to take my love from the power of those wretches, the Doones, the only way of escape apparent lay through the main Doone-gate. For though I might climb the cliffs myself, especially with the snow to aid me, I durst not try to fetch Lorna up them, even if she were not half starved, as well as partly frozen; and as for Gwenny's door, as we called it (that is to say, the little entrance from the wooded hollow), it was snowed up long ago to the level of the hills around. Therefore I was at my wit's end how to get them out; the passage by the Doone-gate being long and dark and difficult, and leading to such a weary circuit among the snowy moors and hills.

But now, being homeward-bound by the shortest possible track, I slipped along between the bonfire and the boundary cliffs, where I found a caved way of snow behind a sort of avalanche: so that if the Doones had been keeping watch (which they were not doing, but revelling), they could scarcely have discovered me. And when I came to my old ascent, where I had often scaled the cliff and made across the mountains, it struck me that I would just have a look at my first and painful entrance, to wit, the water-slide. I

never for a moment imagined that this could help me now; for I never had dared to descend it, even in the finest weather; still, I had a curiosity to know what my old friend was like, with so much snow upon him. But, to my very great surprise, there was scarcely any snow there at all, though plenty curling high overhead from the cliff, like bolsters over it. Probably the sweeping of the north-east wind up the narrow chasm had kept the showers from blocking it, although the water had no power under the bitter grip of frost. All my water-slide was now less a slide than path of ice; furrowed where the waters ran over fluted ridges; seamed where wind had tossed and combed them, even while congealing; and crossed with little steps wherever the freezing torrent lingered. And here and there the ice was fibred with the trail of sludge-weed, slanting from the side and matted, so as to make resting-place.

Lo, it was easy track and channel, as if for the very purpose made, down which I could guide my sledge with Lorna sitting in it. There were only two things to be feared: one, lest the rolls of snow above should fall in and bury us; the other, lest we should rush too fast, and so be carried headlong into the black whirlpool at the bottom, the middle of which was still unfrozen, and looking more horrible by the contrast. Against this danger I made provision, by fixing a stout bar across; but of the other we must take our chance, and trust ourselves to Providence.

I hastened home at my utmost speed, and told my mother for God's sake to keep the house up till my return, and to have plenty of fire blazing, and plenty of water boiling, and food enough hot for a dozen people, and the best bed aired

with the warming-pan. Dear mother smiled softly at my excitement, though her own was not much less, I am sure, and enhanced by sore anxiety. Then I gave very strict directions to Annie, and praised her a little, and kissed her; and I even endeavored to flatter Eliza, lest she should be disagreeable.

After this I took some brandy, both within and about me; the former, because I had sharp work to do; and the latter, in fear of whatever might happen, in such great cold, to my comrades. Also I carried some other provisions, grieving much at their coldness; and then I went to the upper linhay, and took our new light pony-sled, which had been made almost as much for pleasure as for business; though God only knows how our girls could have found any pleasure in bumping along so. On the snow, however, it ran as sweetly as if it had been made for it; yet I durst not take the pony with it; in the first place, because his hoofs would break through the ever shifting surface of the light and piling snow; and secondly, because those ponies, coming from the forest, have a dreadful trick of neighing, and most of all in frosty weather.

Therefore I girded my own body with a dozen turns of hay-rope, twisting both the ends in under at the bottom of my breast, and winding the hay on the skew a little, that the hempen thong might not slip between, and so cut me in the drawing. I put a good piece of spare rope in the sled, and the cross-seat with the back to it — which was stuffed with our own wool — as well as two or three fur coats; and then, just as I was starting, out came Annie, in spite of the cold, panting for fear of missing me, and with nothing on her head, but a lanthorn in one hand.

"Oh, John, here is the most wonderful thing! Mother has never shown it before; and I can't think how she could make up her mind. She had gotten it in a great well of a cupboard, with camphor, and spirits, and lavender. Lizzie says it is a most magnificent sealskin cloak, worth fifty pounds, or a farthing."

"At any rate it is soft and warm," said I, very calmly flinging it into the bottom of the sled. "Tell mother I will put it over Lorna's feet."

"Lorna's feet! Oh, you great fool," cried Annie, for the first time reviling me; "over her shoulders: and be proud, you very stupid John."

"It is not good enough for her feet," I answered, with strong emphasis, "but don't tell mother I said so, Annie. Only thank her very kindly."

With that I drew my traces hard, and set my ashen staff into the snow, and struck out with my best foot foremost (the best one at snow-shoes, I mean), and the sled came after me as lightly as a dog might follow; and Annie, with the lanthorn, seemed to be left behind and waiting, like a pretty lamp-post.

The full moon rose as bright behind me as a paten of pure silver, casting on the snow long shadows of the few things left above, burdened rock, and shaggy foreland, and the laboring trees. In the great white desolation distance was a mocking vision: hills looked high, and valleys far; when hills were far and valleys nigh. And the misty breath of frost, piercing through the ribs of rock, striking to the pith of trees, creeping to the heart of man, lay along the hollow places, like a serpent sloughing. Even as my own gaunt shadow (travestied as if I were the moonlight's

daddy-long-legs) went before me down the slope; even I, the shadow's master, who had tried in vain to cough, when coughing brought good licorice, felt a pressure on my bosom, and a husking in my throat.

However, I went on quietly, and at a very tidy speed, being only too thankful that the snow had ceased, and no wind as yet arisen. And from the ring of low white vapor girding all the verge of sky, and from the rosy blue above, and the shafts of starlight set upon a quivering bow, as well as from the moon itself and the light behind it, having learned the signs of frost from its bitter twinges, I knew that we should have a night as keen as ever England felt. Nevertheless, I had work enough to keep me warm if I managed it. The question was, could I contrive to save my darling from it?

Daring not to risk my sled by any fall from the valley cliffs, I dragged it very carefully up the steep incline of ice, through the narrow chasm, and so to the very brink and verge where first I had seen my Lorna, in the fishing-days of boyhood. As then I had a trident fork, for sticking of the loaches, so now I had a strong ash-stake, to lay across from rock to rock, and break the speed of descending. With this I moored the sled quite safe, at the very lip of the chasm, where all was now substantial ice, green and black in the moonlight; and then I set off up the valley, skirting along one side of it.

The stack-fire still was burning strongly, but with more of heat than blaze; and many of the younger Doones were playing on the verge of it, the children making rings of fire, and their mothers watching them. All the grave and reverend warriors, having heard of rheumatism, were inside

of log and stone, in the two lowest houses, with enough of candles burning to make our list of sheep come short.

All these I passed, without the smallest risk of difficulty. And then I crossed, with more of care, and to the door of Lorna's house, and made the sign, and listened, after taking my snow-shoes off.

But no one came, as I expected, neither could I espy a light. And I seemed to hear a faint, low sound, like the moaning of the snow-wind. Then I knocked again more loudly, with a knocking at my heart; and receiving no answer, set all my power at once against the door. In a moment it flew inwards, and I glided along the passage with my feet still slippery. There, in Lorna's room, I saw, by the moonlight flowing in, a sight which drove me beyond sense.

Lorna was behind a chair, crouching in the corner, with her hands up, and a crucifix, or something that looked like it. In the middle of the room lay Gwenny Carfax, stupid, yet with one hand clutching the ankle of a struggling man. Another man stood above my Lorna, trying to draw the chair away. In a moment I had him round the waist, and he went out of the window with a mighty crash of glass; luckily for him that window had no bars, like some of them. Then I took the other man by the neck; and he could not plead for mercy. I bore him out of the house as lightly as I would bear a baby, yet squeezing his throat a little more than I fain would do to an infant. By the bright moonlight I saw that I carried Marwood de Whichehalse. For his father's sake I spared him, and because he had been my schoolfellow, but with every muscle of my body strung with indignation, I cast him, like a skittle, from me into a snow-drift, which closed over him.

Then I looked for the other fellow, tossed through Lorna's window; and found him lying stunned and bleeding, neither able to groan yet — Charleworth Doone, if his gushing blood did not much mislead me.

It was no time to linger now: I fastened my shoes in a moment, and caught up my own darling with her head upon my shoulder, where she whispered faintly; and telling Gwenny to follow me, or else I would come back for her, if she could not walk the snow, I ran the whole distance to my sled, caring not who might follow me. Then by the time I had set up Lorna, beautiful and smiling, with the sealskin cloak all over her, sturdy Gwenny came along, having trudged in the track of my snow-shoes, although with two bags on her back. I set her in beside her mistress to support her, and keep warm; and then, with one look back at the glen, which had been so long my home of heart, I hung behind the sled, and launched it down the steep and dangerous way.

Though the cliffs were black above us, and the road unseen in front, and a great white grave of snow might at a single word come down, Lorna was as calm and happy as an infant in its bed. She knew that I was with her; and when I told her not to speak, she touched my hand in silence. Gwenny was in a much greater fright, having never seen such a thing before, neither knowing what it is to yield to pure love's confidence. I could hardly keep her quiet, without making a noise myself. With my staff from rock to rock, and my weight thrown backward, I broke the sled's too rapid way, and brought my grown love safely out, by the selfsame road which first had led me to her girlish fancy, and my boyish slavery.

Unpursued, yet looking back as if some one must be after us, we skirted round the black, whirling pool, and gained the meadows beyond it. Here there was hard collar work, the track being all uphill and rough; and Gwenny wanted to jump out, to lighten the sled and to push behind. But I would not hear of it; because it was now so deadly cold, and I feared that Lorna might get frozen, without having Gwenny to keep her warm. And after all it was the sweetest labor I had ever known in all my life, to be sure that I was pulling Lorna, and pulling her to our own farm-house.

Gwenny's nose was touched with frost before we had gone much farther, because she would not keep it quiet and snug beneath the sealskin. And here I had to stop in the moonlight (which was very dangerous) and rub it with a clove of snow, as Eliza had taught me; and Gwenny's scolding all the time, as if myself had frozen it. Lorna was now so far oppressed with all the troubles of the evening, and the joy that followed them, as well as by the piercing cold and difficulty of breathing, that she lay quite motionless, like fairest wax in the moonlight — when we stole a glance at her, beneath the dark folds of the cloak; and I thought that she was falling into the heavy snow sleep, whence there is no awaking.

Therefore, I drew my traces tight, and set my whole strength to the business; and we slipped along at a merry pace, although with many joltings, which must have sent my darling out into the cold snow-drifts but for the short, strong arm of Gwenny. And so, in about an hour's time, in spite of many hindrances, we came home to the old court-yard, and all the dogs saluted us. My heart was quivering,

and my cheeks as hot as the Doones' bonfire, with wondering both what Lorna would think of our farm-yard, and what my mother would think of her. Upon the former subject my anxiety was wasted, for Lorna neither saw a thing, nor even opened her heavy eyes. And as to what mother would think of her, she was certain not to think at all, until she had cried over her.

And so indeed it came to pass. — R. D. Blackmore.

OTHER ICE AND SNOW SPORTS

AN ICE GYMKHANA AT DAVOS

The merriest day of the winter is the ice Gymkhana day. I suppose you will go in for most of the sports, but you should stay out of at least one of the liveliest of them, and go up to the road and see it from that point of vantage. On this day the rink is the centre of all the Oberland, and even the great mountains on the other side of the valley seem to be crowding about it. In the first place it is always conspicuous from every point of view as being the only considerable level space in this region of breakneck slopes; then to-day it is gleaming with color and motion, and has drawn to its edges all the life in the valley. Flags of all nations and Bernese flags float from the surrounding snow embankments; and other flags, tiny ones on sticks that are frozen in cubes of ice, are moved about on the rink itself to mark the various race-courses. In one corner is a table with the usual profusion of kettles and cake baskets enforced on one side by a bear of pure ice embracing a pail of ice-cream, and on the other by its antidote in a huge punch-bowl, while on the bank just above, a bonfire of big logs is kept ablaze throughout the afternoon. Brown-coated men and black-skirted women line the highroad, and the terrace and upstairs windows of the Patisseries are filled with non-participating visitors. Early in the afternoon the contest-

ants gather on the rink, some with shovels, some with toboggans, some with a skate on one foot and a "gouty" on the other; and toward three o'clock the whistle is blown for the first race. What follows is pure sport untainted with art. I need not explain to you the most advantageous method of shovelling a young lady the length of the rink one way, and being shovelled by her the same distance the other way, nor decide whether a toboggan for two will go faster if propelled by four feet or if by two feet and two hands. If you fail to discover these things for yourself, it matters not in the least. For this is a holiday. Books have nothing to do with it, judges are benign; and the prizes are not calculated to breed strife and dissension. Even the ice seems not to mind the rough treatment it gets, and at the end everybody goes in, feeling much refreshed.

Occasionally there is skating in the evening, and at least once there has been a so-called Ice Carnival, in which everybody carried a Chinese lantern, while many wore fancy dress. Some of the costumes were very interesting, and there was music and dancing and fireworks. This part of it might have been pleasant enough; but instead of a moon there was a snow-storm, which combined with some exceedingly smoky torches to make the place so thick and wet and cold that most people went indoors early, and spent the rest of the evening over hot soup and similar restoratives.

— Daniel P. Rhodes.

From *A Pleasure Book of Grindelwald.*

AMERICAN INDIAN SNOW-SNAKES

UNDER the general name of "snow-snake" Mr. Stewart Culin has grouped a number of variations of a game common to the northern range of American Indian tribes, well within the limit of ice and snow.

The game in its older and proper form is played with rods varying from short sticks, darts, or javelins up to rods ten feet in length. Nearly always the wood is scraped and polished, not infrequently its end is carved. Among the Omahas the game seems to have been originally one of sliding bows, and it may be connected with the tribal tradition of the two bows of the twin war gods.

A player grasps the "snake" with his right-hand index finger against one end, the thumb supporting it on one side, the other three fingers on the other. The position is taken with the left side toward the direction in which the snake is to glide, the knees slightly bent and the upper part of the body stooping forward, the left hand resting on the left knee. So the snake is shot forward to glide along the crust of frozen snow, the ice of a stream or lake, or in a rut or track especially prepared. The game is played by two persons or two parties; every snake which outdistances all those on the opposing side scores a point for the side to which it belongs, and often stakes are bet upon the result of such a contest, for, not infrequently the apparently stolid

American Indian shows himself a reckless plunger in the matter of betting on his favorite game. Where no stakes are bet, they sometimes agree to hit once on the head the player whose snake travels the shortest distance.

The snake is often the object of a deal of care from its owner. It may be merely a willow rod, about four feet long, peeled and painted and tipped with a point of buffalo horn. It may be so shaped that the head is slightly thicker than the rest of its length, and this bulb is rounded at the end, slightly flattened, and carved with the eyes and cross-cut mouth of a snake.

Sometimes deep lines or grooves are cut or burned along its length, and into these crude colors, red and yellow, are painted. In thickness as in length there is wide variation; sticks of about the length of an ordinary walking cane may be about one-fourth inch in thickness and taper from a width of nearly an inch at the head to less than half that at the tail.

Among the northern tribes of American Indians the snake may be made of hickory with the most perfect precision and finish, from five to seven feet in length, with a round, pointed head turned up slightly and tipped with lead to increase its momentum. A player of dexterity and strength could make such a snake run to a distance of sixty or eighty rods.

A contest was decided when either party had gained the number of points agreed upon, usually seven or ten.

The common form of the game was, as had been said, a contest in distance-throwing without special track or tee, but in this respect also different tribes varied the sport. The Chippewa played it with shoshiman (slipping sticks),

of which the knob end was bent upward slightly, to pass more freely over any obstacle, and made the thrust at a small gently rising incline of frozen snow formed on the ice, over which the sticks darted with great force, covering a considerable distance before touching the ice.

Among the Assiniboin a narrow track is made down a hillside for sixty feet or more, and iced. Across it at points about ten feet apart are four barriers of loose snow. The dart, which they call puckitseeman, is short, from eight to eighteen inches, and is thrown, as in underhand bowling from a distance of about ten feet at the nearest barrier. The object of the game is to pass the dart through all four barriers at one throw; points may be counted, however, according to the number of barriers penetrated by the dart. A special form of the game is played by the women exclusively. In this the ice-path is narrower and made with many turnings, but no barriers; the passing of the dart around the several turns is held to be a difficulty equivalent to that of the barriers in the men's game.

Among the Penobscot Indians the game was called *su-ha*, says C. C. Willoughby, who thus describes it: —

When a man wanted to play this game, he took a number of his su-ha sticks and went through the village calling "su ha ! su ha !" One or more of the men would thereupon take a boy by the feet and drag him down some incline, thus making a track or path in the snow. Down this path each player in turn, calling out "su ha !" threw one of his sticks as a spear is thrown. To mark the distance this stick was stuck up in the snow beside the path, opposite the place where it stopped. When all the sticks had been thrown, they became the property of the man whose stick

had covered the greatest distance. He would gather them all up, and after selecting such as he wanted, would throw the others up in the air, and they became the property of those strong and quick enough to secure them.

The Seneca play the game from a running start of three or four rods, and just before the player throws he jumps. In this running start the snake is balanced on the left hand and held by the tail in the right hand, with the fingers beneath and the thumb above.

Skill in the game lies in delivering the snake at the best slant. In this game one may trace a possible origin for the institution of the caddy, for it was the small boy's part to run and bring back for the throwers.

The Iroquois played a game precisely similar in principle, but with a snow-boat instead of a snow-snake.

The boat was about fifteen inches in length, and made of beech or other hard wood, something in the fashion of a canoe. It was solid, with the exception of an oblong cavity in the centre, designed to suspend bells or other rattles upon. In the stern of this little vessel a white feather was inserted for a flag, by which to follow it in its descent. On the bottom the boat was rounded, but with a slant wind lengthwise to give it a true direction. A side-hill, with an open plain below, was the kind of place selected to try the speed of the boats. Trenches in a straight line down the hill, and about a foot wide, were made by treading down the snow; after which water was poured into them that it might freeze and line the trenches throughout their whole extent with ice. These trenches, to the number of a dozen, side by side, if as many individuals intended to play, were finished with the greatest care and exactness, not only down

A MENOMINEE INDIAN HOLDING THE SNOW-SNAKE IN THE PROPER POSITION FOR A THROW

the hillside, but to a considerable distance across the plain below. At the same time the boats themselves were dipped in water, that they might also be coated with ice.

The people divided by tribes in playing this, as in all other Iroquois games, the Wolf, Beaver, Bear, and Turtle tribes playing against the Deer, Snipe, Heron, and Hawk. At the time appointed the people assembled at the base of the hill and divided off by tribes, and then commenced betting on the result, a custom universally practised on such occasions. The game was played by select players who were stationed at the top of the hill, each with two or three boats, and standing at the head of his own trench. When all was in readiness, the boats were started off together at the appointed moment, and their rapid descent was watched with eager interest by the people below. . . . The game was played for a number of points decided upon in advance, and continued until one side made that number of points. A count of one was made for every boat which led all upon the adverse side, so that if there were six players upon a side, it was possible for six points to be made at one trial. On the contrary, if all the boats but one upon one side were in advance of all but one upon the adverse side, and the latter was in advance of all, this head boat would win, and the count would be one for the side to which it belonged.

Another game similar in principle was played with the "bone-slider," a piece of bone or horn, in one end of which two bits of wood are fixed, with a feather fastened on each. The bone varies from four and a half inches to seven or eight; the total length from seventeen to twenty-five inches. The bone is usually a piece of buffalo or beef rib.

It is held with the forefinger between the two sticks, its end against the end of the bone, the thumb upon one side of the bone and the other three fingers on the opposite side of the rib, the convex side of which is down. It is then thrown down and forward against the ice so that it glances forward as the snow-snakes do. A Cheyenne specimen is elaborately etched with incisions into which color has been rubbed. The marks represent a horned toad, a tarantula, the milky way, and the moon, signs which invoke the four winds. The six legs of the tarantula represent up and down and the cardinal points.

Collated from "Games of the North American Indians," 24th Annual Report of the Bureau of American Ethnology. By Stewart Culin.

ICE SHUFFLEBOARD

THE popular game of shuffleboard can be transformed into an excellent winter sport, something like curling, but — mention it not in a Scotchman's hearing — having several advantages over that good old game. It requires neither costly appliances nor the strength necessary to wield heavy weights, and may be played by women as well as men.

The game is easy to play. On a smooth piece of ice five circles are marked out, having a common centre, the innermost circle having a radius of six inches, and each outer one a radius of six inches larger than that of the circle next nearest the centre of the target thus formed. The spaces between the lines are numbered from one to five, the highest number being at the centre. From a line a little distance away, say twenty-five feet, round disks are propelled by long cues toward this target. The object of the game is for each side to shoot its disks as near the centre of the circles as possible and to knock its opponents' disks away.

The playing is usually arranged for four persons, two against two, shooting in rotation, and there are twelve disks, giving each player three shots. When all the disks have been played, each side is credited with the number of points indicated by the spaces in which the disks lie, and the difference between the two scores is given to the side having the larger number. Disks outside the larger circle

do not count, while those resting on lines count in the space which holds more than half of the disk.

Additional rules in scoring may be adopted if so desired. For instance, one of the spaces between circles may be marked "five off," or there may be other similar arrangements. This will add interest to the playing, as each side will try to avoid that space and to force its opponents into it. A closer contest will also be assured if disks resting on lines are not allowed to count, as well as those entirely outside the circles.

The disks are made five inches in diameter, and one and three-quarter inches thick. These of course could be cut out with mallet and chisel, but this would be a rather tedious task. If one is fond of doing carpenter work and possesses a lathe, they can be turned out in a short time; otherwise it would be better to have them made by a carpenter. Any wood can be used, although oak or ash would be best, as they would thus be heavier and slide along the ice more easily, besides being less likely to soften from the dampness and become rough. The disks should be marked in some way so as to facilitate counting.

The cues are not so easy to make. They should be made of light wood — pine is as good as any — one and one-quarter inches thick, and should be eight feet long, to give more force and accuracy to the shot. The end resting on the ice should be four inches across, with a slight curve in the centre, so that a better hold on the disk may be obtained. The cues may be made in two ways: the first and perhaps the better is to take a board the required thickness, eight feet long and four inches wide. Cut a curve in the end, using one of the disks as a marker in order to get the same

curve. From its points mark a line curving in on both sides until the wood is the same in width as in thickness. Then saw along these lines the entire length of the board, leaving a square handle. This can either be turned on a lathe, or rounded with a plane to give a smooth surface. The slight hollow at the end of the cue can be made by gouging out, or using a circular plane, and the edges of the broader parts should be slightly rounded to allow it to slide easily without splintering. . . . A short cross-piece of wood nailed to the end of an eight-foot stick will answer the purpose, but it is not symmetrical.

It would probably cost not more than seventy-five cents to a dollar to have the twelve disks turned out by a carpenter. If they are chiselled out at home, the cost would only be for the material. Wood of this thickness (one and three-quarter inches) would cost about twelve to fifteen cents a square foot, so that the material would cost, at this figure, between thirty-six and forty-five cents. A carpenter would charge about seventy-five cents each for the cues, but a good deal of this charge would be for time expended. An eight-inch board would make two cues, and would cost, on the average, nine cents per square foot. This would make the expense for material alone about fifty cents. When the whole work is undertaken by a carpenter or turner, the expense for a set of two cues and twelve disks is about $2.25; but when the work is done at home, the only cost will be for material, which would be under a dollar.

— F. L. Cooper.

From *Conntry Life in America.*
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THE ICE CARNIVAL

THE Ice Carnival was unique in its inception, distinct in its appointments, and brilliant in its passing. It is like an illuminated page in the history of Canadian sport. The carnival was the outgrowth of the Canadian enthusiasm for winter sports, and the result of the ambition of the athletic spirit of the Dominion to express itself in one grand, comprehensive and organized display.

Canada has always been distinguished for her sports. Skating, snow-shoeing, tobogganing, sleighing, curling, and hockey each numbered enthusiastic devotees. To amalgamate these interests was the object of the carnival. The idea was favorably received and for a time engrossed the attention of every loyal Canadian. Commercial, political, and social aids were all brought to contribute to the success of the ice carnival.

The first carnival was held at Montreal, in the winter of 1883, and lasted five days. The weather was ideal. The success of the great undertaking was thereby assured, for when Old Prob frowns at midwinter in Canada, even the hardy habitants hover indoors. At that time the Marquis of Lorne was Governor-General, and he and his popular consort, the Princess Louise, encouraged the carnival in every way, thus giving the fête a social glamour that made it doubly alluring.

The ice palace, the carnival idea which substantially and brilliantly expressed the possibilities of a Canadian winter, proved an immense attraction to visitors. The palace was constructed of solid blocks of ice taken from the St. Lawrence River. That of 1893 was typical. It was ninety feet square, with a rectangular tower at each corner, and from the center arose a great tower eighty feet in height. The palaces were solidly built and stood the changes of temperature long after the carnival had passed. In Montreal they have always been erected upon a large square in the centre of the city. In Ottawa they occupied a site upon a picturesque promontory called Nepean Point, which overlooks the city and the Ottawa River. They were imposing and remarkable edifices and always stimulated the rivalry of the most famous architects of the Dominion.

At the formal opening of the carnivals the palace was stormed by hosts of snow-shoers clad in brilliantly colored blanket costumes of white set off by gay stripes. In Montreal the procession, armed with flaming torches, started at some snow-shoe club on Mount Royal, overlooking the city, and dashed down through the streets, resembling a gigantic trail of light. Upon arriving at the palace its battlements were stormed with Roman candles, sky-rockets, and varicolored fire. Its interior being brilliantly illuminated, the effect was thrilling, the translucent walls of the palace having the appearance of a castle in fairyland. The climax was reached when, with ringing shouts and cheers, the snow-shoers took final possession, and a burst of fireworks and a booming of cannon proclaimed to the assembled thousands of spectators that victory had been achieved.

The programme of the week of sport was equally brilliant. An afternoon was devoted to a driving parade, in which those magnificent horses for which Canada is famous pranced through the streets, drawing sumptuous sleighs embellished with great plumes and gay colors, and whose occupants were muffled almost beyond recognition in great fur coats and hoods, giving them the appearance of primitive Esquimaux. Those seen not wearing the Canadian hood and fur were set down as "people from the States." . . .

The immense Victoria skating-rink at Montreal was a scene of brilliancy. The Canadian women are particularly expert in skating, and upon the evening of a masquerade on the ice the galleries as well as the rink were crowded. The costumes were gorgeous and the effect kaleidoscopic, as the skaters went through lanciers, quadrilles, and waltzes with an ease and grace that seemed almost marvellous. The rink was decorated from arch to ceiling with streamers and flags of all nations. . . . A great ball was always given by the snow-shoers at a club on Mount Royal; and both there and at the Windsor popularity underwent a penalty, for "bouncing" was a favorite amusement during carnival week. The sport consisted of a dozen sturdy fellows throwing some popular visitor or one of their number into the air and catching him in a blanket as he fell. The distinction was thrust upon one — not sought.

The carnivals, though in the main similar, differed in details in different years or places. One year a maze was constructed, entirely of ice, in a public square. At the centre the successful explorer was awaited by "something hot." A feature of interest, in both Montreal and Ottawa, was a "live arch," which consisted of an immense structure

THE BOUNCE: A CARNIVAL COURTESY

like a gateway of an ancient city, covered with evergreens, and here and there and everywhere places for snow-shoers to protrude their heads, enveloped in the picturesque capuchin hoods of their blanket costumes.

But a reaction set in; Canadians began to feel that their country was looked upon only as the abode of ice and snow, and any random talk of the revival of the ice carnival is frowned down emphatically throughout Canada.

— Edwin Wildman.

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FÊTE DE NUIT IN MONTREAL

I HAVE been in Montreal in both summer and winter; of the two I prefer it when the white mantle is drawn over it, when bright crowds can be seen trudging through the snow, with their snow-shoes or their skis on their backs, going out to live, going out to forget work and money, and to revel in the glory of the winter.

I was there on the *fête de nuit*, and a gayer, brighter, happier concourse of people than those assembled on Mount Royal that night I have seldom seen. But never before was it brought home to me how really foreign Montreal is, or, I should say, how foreign I was to Montreal. These people were neither French, English, Canadian, nor American, and yet they reminded me of each.

There were twenty thousand people on Mount Royal that night, some clothed in furs from hat to boot, others in the picturesque, closely fitting blanket costume of the Canadian who goes forth in the snow to enjoy life.

From the top of Mount Royal a toboggan slide had been made. It was lit on both sides with Japanese and Chinese lanterns, and the dancing lights showed on the faces of the tobogganers as they raced down at a maddening pace, amid the cheers and laughter of the crowd.

Rocket after rocket flew skyward, curved and burst into thousands of glimmering stars. A roaring great bonfire

with a dozen barrels of tar to feed its flames sent a lurid light into the heavens, and from all sides merry boys and girls were snowballing it. Hissing and roaring, the great fire licked up tar and log and the streams of snowballs, which in the strange light looked as if the fire were a magnet drawing little white balls into its centre from all directions.

Skiers dashed past as near the flames as the heat would permit. Men and women with snow-shoes walked toward it to get warmed through. Fur-coated patersfamilias gradually settled down at a convenient distance from it, with the excuse that the children would find them better if they were in the circle of light.

Then the coming home when the hour was growing late; the merry jingle of sleigh-bells could first be heard and then the thudding of a toboggan as a crew who started far up the mountain shot down into the road and on, on, down through the crowds, face downwards, laughing, shouting, dashing onward; mad, merry, and irresponsible — what was a spill, or a dozen spills to them? It was *fête de nuit*.

Pedestrians rushed to the sides of paths and yelled with delight as another toboggan shot by and a pair of daring skiers shot swiftly over the rugged places of the half-formed roads. The tinkle of the sleigh-bells behind and ahead in the semi-darkness added to the magical effect of the whole scene.

Winter in Montreal is one long day of enjoyment for those who love the winter sports.

— E. WAY ELKINGTON.

MR. PICKWICK'S FAMOUS SLIDE

Mr. Weller and the fat boy, having by their joint endeavors cut out a slide, were exercising themselves thereupon, in a very masterly and brilliant manner. Sam Weller, in particular, was displaying that beautiful feat of fancy-sliding which is currently denominated "knocking at the cobbler's door," and which is achieved by skimming over the ice on one foot, and occasionally giving a two-penny postman's knock upon it, with the other. It was a good long slide, and there was something in the motion which Mr. Pickwick, who was very cold with standing still, could not help envying.

"It looks a nice warm exercise that, does n't it?" he inquired of Wardle, when that gentleman was thoroughly out of breath, by reason of the indefatigable manner in which he had converted his legs into a pair of compasses, and drawn complicated problems on the ice.

"Ah, it does, indeed," replied Wardle. "Do you slide?"

"I used to do so, on the gutters, when I was a boy," replied Mr. Pickwick.

"Try it now," said Wardle.

"Oh do, please, Mr. Pickwick," cried all the ladies.

"I should be very happy to afford you any amusement," replied Mr. Pickwick, "but I have n't done such a thing these thirty years."

"Pooh! pooh! nonsense!" said Wardle, dragging off his skates with the impetuosity which characterized all his proceedings. "Here; I 'll keep you company; come along." And away went the good-tempered old fellow down the slide, with a rapidity which came very close upon Mr. Weller, and beat the fat boy all to nothing.

Mr. Pickwick paused, considered, pulled off his gloves and put them in his hat, took two or three short runs, balked himself as often, and at last took another run and went slowly and gravely down the slide, with his feet about a yard and a quarter apart, amidst the gratified shouts of all the spectators.

"Keep the pot a bilin', Sir," said Sam; and down went Wardle again, and then Mr. Pickwick, and then Sam, and then Mr. Winkle, and then Mr. Bob Sawyer, and then the fat boy, and then Mr. Snodgrass, following closely upon each other's heels, and running after each other with as much eagerness as if all their future prospects in life depended on their expedition.

It was the most intensely interesting thing, to observe the manner in which Mr. Pickwick performed his share in the ceremony; to watch the torture of anxiety with which he viewed the person behind gaining upon him at the imminent hazard of tripping him up; to see him gradually expend the painful force which he had put on at first, and turn slowly round on the slide, with his face towards the point from which he had started; to contemplate the playful smile which mantled on his face when he had accomplished the distance, and the eagerness with which he turned round when he had done so and ran after his predecessor, his black gaiters tripping pleasantly through the snow, and his

eyes beaming cheerfulness and gladness through his spectacles. And when he was knocked down (which happened upon the average every third round) it was the most invigorating sight that can possibly be imagined to behold him gather up his hat, gloves, and handkerchief, with a glowing countenance, and resume his station in the rank, with an ardor and enthusiasm which nothing could abate.

— Charles Dickens.

From *The Pickwick Papers.*

CHILDREN'S GAMES ON THE SNOW AND ICE

ANY youth who spends his early years by a broad river, say the upper reaches of the Mississippi, enters life under favoring star.

There are good points about the ocean, one may admit, but can it offer anything better than a long summer day on a logging raft, sliding down "without haste, without rest," to the city miles down-stream whence one comes home in the "caboose" of a way freight and exchanges the "yarns" of the logger for those of the brakeman?

Does the ocean's "stern and rock-bound coast" ever give a small boy the delight of sitting up to see "the night boat going up," her whistle tooting "howdy" to the town too small for a stop, a blaze of lighted windows, with swaying lanterns of red and green as "she" swung round the bend, *and* a band on the upper deck?

Setting aside the objections of the small Iowan who went in swimming at Asbury Park: "It don't feel like home, an' it don't taste like home, an' it *bumps* you," does the ocean freeze solid all the way across? When that happened to the river, a boy might smuggle a ragged old buffalo-robe, as much food as he could keep overnight uneaten, wake early by a monstrous effort, and in the gray of the morning, when the ox sleds plodded out of the lumber-yard to carry the woodcutters to their work, be off to discover a new

world in what seemed to him the primeval forest on that other side so inaccessible all summer when the river's strong current ran between. A boy who could not pick up chips in the home yard for ten minutes without getting "tired" thought a bushel basket full a small price to promise for permission to spend a Saturday at the woodcutters' camp. Sometimes he never knew just how the day ended, or that friendly Olaf, Hans, or François got a hot supper at dusk for delivering at the back door a basket of chips and a blanketed bundle of half-unconscious, sleepy boy from the top of a load of cordwood.

Such adventurous days did not come often, but the frozen river was always his for a playground. If snow spoiled their slide or stopped their skating, he and the other children whose fathers owned the big sawmill by the river would make an "Indian village" rise as if the river were sprouting toadstools. Their only tool was a small-sized snow-shovel made by putting a long handle on a stout oak shingle. Each boy was thoughtfully outfitted by his family with one of these implements very early in the season and in his first enthusiasm over the gift cleared unnumbered cubic yards of snow from paths and porches; later it was used chiefly in hut building. The construction was simple; one took a small snowball and rolled it till it was as large as he could easily move around, and then began another; ball after ball of nearly uniform size was made and laid one beside the next until the ground plan was traced of either a round "igloo" or a square hut, as fancy decided. Usually the foundation was made about two feet thick at the base, and upon this more balls were laid in tier on tier. Inside and out the walls were squared with

shovels and every hollow was chinked with snow. If there had not been an abundance of "brush" at hand, some other form of roofing must have been devised; but since such boys are born democrats, and not a logger, sawyer, ox driver, or any other employee of their fathers escaped their acquaintance if he stayed a week at the saw-mill, it was easy in hut building time to have a load or two of hemlock boughs brought to the ice. The walls were carried up to the height at which perseverance gave out, and then the hemlock branches were spread across the top from side to side, stem and tip alternating so as to secure an even thatch. Loose snow was thrown over the top, and the builders were best pleased if after that a fresh fall came and softened every outline. The open spaces for doors were always left on the western side, facing their homes; this was probably on account of the prevailing winds, but as Olaf said, "it did gif dem such a pride" to sit on their heels on a lumberman's blanket inside and look out upon the homes of parents and guardians, "other men's houses."

Sometimes war broke out, if the ice cutters left a few squared blocks from which the boys could build a fort. However militarists may argue in modern times, a standing army and strong defences did not in that day make for peace. A few deftly thrown taunts, a hard snowball or two, or the mere sight of the fort, brought the enemy swarming from in front of the "Shanties" a little way down-stream. Then a war was on with loud war-cries (from Marco Bozarris) and some bloodshed (from noses).

Among themselves the boys more often played a snow-balling game which consisted in setting up outside one's hut a cane or even longer stick on the point of which was

set a good firm snowball. Having previously stored the hut with a very large supply of snowballs, one then announced loudly, "I am an Englishman!" on the principle, it was understood, that an Englishman's house is his castle and that he stood ready to defend it against any invader who should attempt, by the throw of another snowball, to knock the flaunting symbol off its stick.

The young lumbermen, from whom that game was learned, played it differently, dividing their number into "sides" a fair throw's length apart. Each man drove an iron-shod pole into the snow in front of him; piled a heap of snowballs at his feet; stuck a ball on his pole; and was ready at once to defend his own and attack the pole opposite him on the enemy's side. A man whose ball was shot away rallied to the support of any man on his own line whose ball was still in place; and that team won which could show a reasonably large fraction of a ball (if not a whole one) remaining after all those on the other side had been knocked from their supports.

One winter a Dutchman working at the sawmill taught the boys to propel their sleds over the frozen crust of the snow on the river by using two pointed sticks as push poles. In that flat country such coasting as was possible was not exciting; but the boy who nailed a cross-bar near the tips of the runners of his low, stout sled as a foot-rest, and learned the trick of pushing himself about while sitting erect with a push stick in each hand, could move at a surprising rate of speed. The cross-bar, or narrow board, which served as a foot-rest, had another use, also in, some games which the same Dutchman taught the boys to play with wooden balls. One of these, in which the number

A WINTER SPORT IN JULY ON MT. TACOMA.

of contestants at one time was limited to two by the fact that only six balls of the previous summer's croquet set could be found, was played by marking a line some eight feet long or so on the ice; three of the wooden balls were placed at one extreme end of the line and three at the other end. About fifty feet away or at any greater distance agreed upon by the two players, a second line of the same length was drawn, parallel to the first. At each end of this a contestant took his station, sitting on his sled with a stick in each hand. On the given signal: "One, two, three, GO!" each stick dug into the ice and each sled shot off. The object was to reach and round the mark on which those balls lay, pick them up and place them on the cross-bar of the sled and so carry them back to the starting-point before one's opponent could do the same at his end of the lines. He must not touch the ice with his feet at all; he could touch the balls only in lifting them from the ice to the sled; and should one roll off, he could not retrieve it until he had first gone on to the home line. There he left any ball which with good luck remained with him, rounded the home mark, and then if the other fellow were also scant of his full score, returned again for the stray. At each line a full turn must be made; that is, the ball line must be crossed and a turn made beyond the point on which the balls were laid before starting back; if it was necessary to go back for a ball, the home mark must be rounded in the same way; if one were steady enough to bring all three balls home on the first trip, it was necessary only to cross the line. So many variations of the sport were possible that the conditions of a contest were nearly always made the subject of a hot discussion.

Sometimes all the three balls were to be brought in with the fewest trips possible; in the next game the players might agree that a separate trip must be made for each ball; and at another time all six balls were laid on a single line at distances of ten yards from the competing sled and from each other and the struggle was to see who could bring them to the home mark on his sled, one at a time, most quickly. In certain conditions of the crust, or the ice, a "sweeper" was allowed to each sled. (Surely this detail was gleaned from the Scotchmen who played "the roaring game" whenever enough of them were in the "yard" and the ice was keen for curling.) The sweeper might not touch either ball or sled; she (it usually was a "she") was there solely to remove loose snow and "rock" from the sledder's path; and if a too vigorous shove with his stronger arm sent him off the path to lose precious time extricating his sled from a drift, she was apt to be rewarded with: "Well, if you *won't* sweep where I 'm going!" This game of sledding as played on smooth ice with the shod ends of broken peavies for propellers, was not disdained by even the grown men who, too, spent what time they could upon the river in those days in the seventies.

Hockey had not then become a popular winter sport, and on skates the boys were fitly humble; for young Scandinavian and Dutch lumbermen showed them such a standard as made them forever scornful of any other skater's claim to speed or grace. If any boasted in their presence, all they said was: "You never saw Olaf?" with a rising inflection which would have done credit to a Harvard man, and with the finality of one who had "fought with Grant," as the saying is.

Speaking of "rocks" recalls another game known as breaking the duck's neck, for which two rings with a common centre were marked on the ice. These were made by using a strip of lath from the lumber-yard, one inch by two inches, and sixteen feet in length. Near one end of it a spike was driven through the wood, and two others at distances from it of five and fifteen feet; spike number one was always allowed to project a little farther through the wood than the other two. This longest spike was driven firmly into the ice at the point selected for the centre of the circle; then the "marker" was swung around it as on a pivot, so that an inner and an outer ring were described by the others. After the marker was removed, a big lump of ice, or sometimes a stone, was set with one end of it over the centre point. This was the "duck"; resting upon one end of its upper surface, usually as nearly above the actual centre of the circles as was possible, was placed another bit of ice or a smaller stone to serve as the duck's head. The players took each a station, or "mark," on the outer ring, at distances apart depending on the number of players; and after the choice of marks was settled with the usual disputes as to advantage or disadvantage from the direction of the wind or the glare of the sun, he or she set about the shaping of the "tee" on which success depended. On the inner ring, at the point where a straight line between his mark and the centre crossed the inner ring, each player heaped a little loose snow and then packed and shaped an outer slope so that when from his mark he should skim a flat bit of ice toward the centre on the frozen surface, it would be lifted by the gradual rise of the tee and go on its way at a height calcu-

lated to knock the upper stone off of the lower and thus "break the duck's neck." The height of the duck's "head" from the level of the sheet of ice varied according to the size of the chunk selected for the body of the bird, but was usually seven or eight inches. The piece of ice used as a skimmer was always called a "rock," a name brought over from the summer sport of skimming flat stones (in that midwest idiom, rocks) on the surface of the water. The height of the tee and the grade of the approach to it were both left to the judgment of the individual player, although advice was scattered freely by the gallery. The tee must be very smooth, and the skimming very swift; even then most ducks survived many attempts at beheading.

Upon the same rings, or upon others like them trodden in the snow, boys and girls played a form of the old game of "fox and geese." The stations which had served as marks now became "ponds" in which geese swam gayly indifferent, as they fluttered from one pond to another around the outer ring to the fox prowling on the inner ring, which must be crossed by every goose before it could gain the safety of the "barn" at the centre. For a limited time the fox must not leave the "woods," as the inner ring was called; the geese might "swim" on the "rivers" between the ponds (*i.e.* on the outer ring) or on the line from any pond to the barn, risking capture only where the line crossed the woods. At any time after play began, a goose might return to the barn; it was a question whether to do so by one bold dash when the fox was looking elsewhere, or wait "shivering on the brink" until the clucking call of the "farmer" signified that every goose must return

by the path from the pond nearest him or be open to capture anywhere. For the farmer's call was the signal of nightfall, and after dark, as is well known, a fox may go where he will. At all times it was a point of honor for a goose

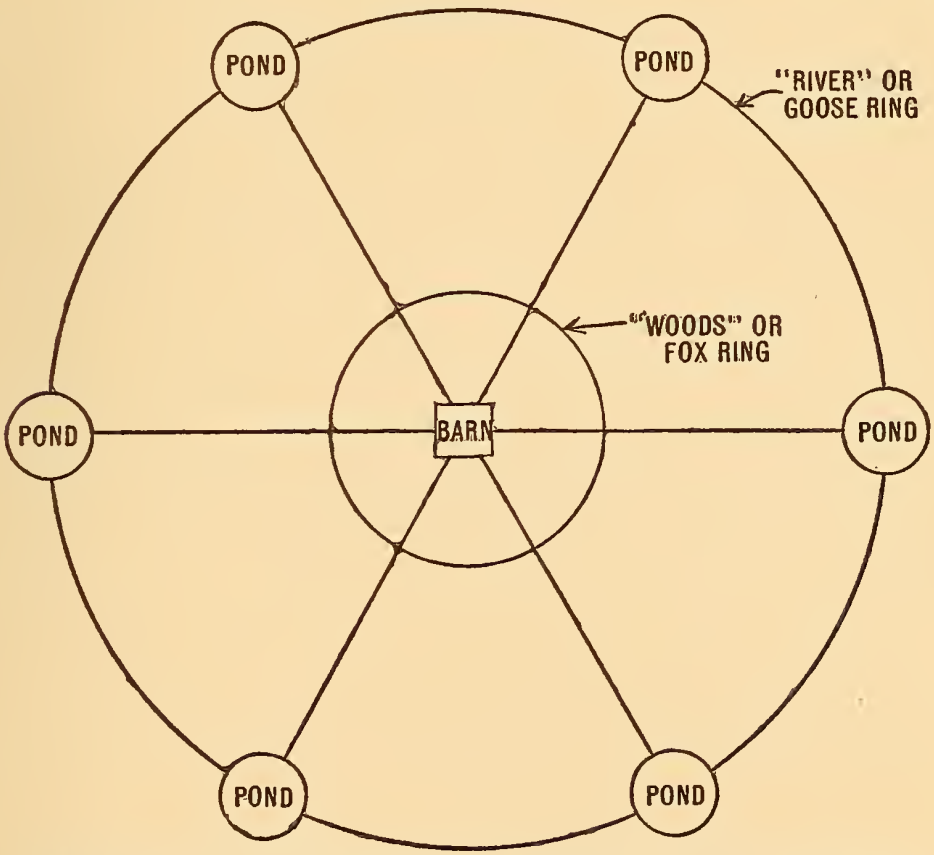

Diagram of the Double Ring for the Game of "Fox and Geese."

to make as much noise as possible; a frequent practice was for all of them to run round and round the outer ring with a great quacking and fluttering of "wings," hoping to deceive Brer Fox into thinking that they would not seek the barn before nightfall; and suddenly, without a break of speed to give him warning, a goose would dash home; sometimes all charged together from different paths, or if a daring soul would risk being last goose, all by one path together. A caught goose promptly became fox, quite according to nature.

Skiing was not among the boys' sports then; occasionally some Norwegian came down the river on ski, the speediest way of travelling afoot, but probably it seemed to him but tame sport after the slopes and "hops" of his native land, and the ski were seldom used for pleasure, nor were the boys taught to make them.

In these later years so soon as the ice will bear, a long toboggan slide is run down on to the ice from the roof of a covered dock, giving a long down-stream run of a mile or more beyond the end of the chute when the ice is smooth. There are winter sports a-plenty, snow-shoe and ski and ice-yacht races, ice carnivals and "pageants" on the river; for in the city of to-day, as in the little town from which it grew, the river still dominates the pleasures of youth.

— J. C. D.

INDEX

Alpine pass, crossing an, on ski, 228–233.
American Indian games played on the snow or ice, 321.

Barahones, 176.
Bob-sleds, 247, 251.
  construction of, 252.
  on the Cresta Run, St. Moritz, 268.
  on the Klosters course, Davos, 266.
Bone-sliding, an Indian sport, 325.
Breaking the duck's neck, an ice game, 345.

Caribou country, a snow-shoe adventure in the, 179–188.
Cariole, the French Canadian, 280, 282.
Carnival, a winter, at Davos, 320.
  in Quebec, 199.
  in Montreal, 330, 334.
  the masquerade ball of a, 332.
  sleighing parade in a, 283–287, 332.
    See also under Ice fort, Ice palace, etc.
Coasting, at St. Moritz, 268.
  costume for, 253.
  in the old-fashioned way, 247–249.
  on ski, 232.
  on snow-shoes, 194.
  on the Klosters course, Davos, 266.
  on Swiss roads, 251, 253.
  primitive type of, seen in Quebec, 258.
    See also Tobogganing.
Cresta Run, the, at St. Moritz, 268.
Curler's Elegy, a, 163.
Curlers, the Jolly, 148.
Curler word, the, 139–141.
Curling, the game of, 125–162.
  general rules of, 133–138.
  humors of, 150–156.
  points in the game, 130, 157–162.
  rules for point competition, 157–162.
  the skip, 142, 147.

Duluth Ski Club, 240.

Fox and Geese, a snow or ice game, 347.

Gadow, Hans, account of finding snow-shoes in Spain, 175.
Games played by children on the ice or snow, 341.
Gymkhana day at Davos, 319.

Holland, skating in, 96–100.
Holmenkollen games, the, 207–218.
Hoprend, the annual Norwegian, 207–218.

Ice-boats, 1.
  how to build a sixth-class yacht, 32–40.
  on the Shrewsbury River, 8.
  racing centres, 2, 7.
  sailing and racing, 18–26, 27–31.
  the thrill of sailing, 5, 18.
  types of, 1.
Ice fort, storming an, 199, 331.
Ice gymkhana day at Davos, 319.
Ice hockey, 109–124.
  body-checking in, 114.
  the Canadian national game, 111–119.
  rules of the game, 120–124.
Ice-motors, 2.
  friction type, 3, 9, 11.
  propeller type, 3, 15.
Ice palace in Montreal, 331.

Ice shuffleboard, 327–329.
cues described, 328, 329.
disks described, 328.
rink for the game, the, 327.
Ice-streaking, the new winter sport, 4–10.

Klosters course for toboggans at Davos, 266.

Luge, the Swiss toboggan, 251.

Masquerade ball on ice, 332.
Montreal Ice Carnival, 330.
Montreal Snow-shoe Club, 202.
songs of, 170, 201.
storming the ice palace, 331.
Motor-running on the ice, 1–17.
Motor sleds on Saranac Lake, 3, 15.
Mount Royal, winter sport on, 259, 331, 334.

"Old Tuque Bleue," 201.
Olympic games of the North, 207–218.

Picnic, a winter, of the snow-shoers, 192–195, 197.
Puckitseeman, 323.

Quebec Snow-shoers Club, 168.

Saranac Lake, motor sleds on, 15.
Scooter, birth of the, 41–46.
building of a, 47–51.
"Ships of the north," 278.
Shoshiman, 322.
Skate-sailing, 101–107.
Skating, 53–107.
figure, 67–73.
Frisian and Dutch schools, 98.
humors of, 92.
in a masquerade ball on the ice, 332.
in 1180, 59.
in Grindelwald for the Little Bear, 65.
in Holland, 96–100.
points of form in valsing on the ice, 85–91.
rudiments of, 53–59.
valses suited to dancing on the ice, 91.
valsing on the ice, 74–84.
Ski, a beginner on, 222, 228.
an American tournament, 240–244.
carrying mail over the Andes on, 234.
construction of, 204.
crossing an Alpine pass on, 228.
Skiing, 203–246.
costume and outfit for, 204–206.
first attempts at, 222, 228.
resorts, 245.
use of the pole in, 212, 222.
Ski-jumping in the Holmenkollen games, 207–211.
the Telemarken method, 212–214, 220.
tournaments in America, 242.
Ski-lobner, who became famous, 212–214.
Frognersæter a rendezvous for the, 215.
Skimen as mail-carriers over the Andes, 234–239.
Ski-running, a practical lesson in, 222–227.
changes in methods of, 212, 219.
in the Olympic games of the North, 207–218.
long-distance contests in, 215–218.
Ski tournament, an American, 240–244.
Skip, the, in the game of curling, 126, 129, 133–137, 142–147.
Sledding with push poles, 342.
Sledges, of Moscow, the, 291.
of Switzerland, travelling post, 296–307.
Sleighing, 279–318.
in a carnival parade, 332.
in New York, 284.
in Paris, 285.
in Quebec, 280.
on the Névsky Prospékt, 288.
the Russian mode of harnessing horses for, 286, 292.
Sliding, Mr. Pickwick's famous slide, 336.
Slipping sticks, 322.
Smalslœde, the Norwegian, 309.
Snow-balling, 341.
Snow-boats of the Iroquois, 324.

Snow-hut building, 340.
Snow-shoeing, 165–202.
costume for, 171, 199.
Snow-shoers storming the ice palace in Montreal, 331.
Snow-shoes among snow-slides, 189–191.
a night run on, 169, 197, 280.
a novice on, 177.
coasting on, 194.
construction of, 173.
crossing fences on, 169, 193.
hunting on, 179, 188.
in Spain, 175.
Montreal Snow-shoe Club, songs of, 170, 201.
Quebec Snow-shoe Club, 168.
storming an ice fort on, 199.
the key to the winter forest, 165–167, 193.
types of, 175.
Snow-snakes of the American Indians, 321.
Speed-intoxication, 265.
Speed, the feature of modern winter sports, 1, 4, 11, 269, 274, 277, 334.
Stanley Cup, the trophy of Canadian ice hockey, 110, 113.
Su-ha sticks, 323.

Tailing, 251.
Telemarken, the skiing resort, 212, 220, 246.
the smalslœde of, 308.
Toboggan, a home-made, 256.
manufactured, 254.
the primitive, 254.
Toboggan chute, 254, 259, 262–265.
Tobogganing, 247–278.
as a sport, 259.
at Ardsley-on-Hudson, 264.
by moonlight in Switzerland, 275.
in Montreal, 259–261.
on a Swiss glacier, 270.

Winter, King, in his city home, 279.
Winter sports, centres of, 2, 7, 109.
Wooden wings of Norway, 203.

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